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ART. I.—*Thoughts on the Origin of Moles (Germen Falsum), and on certain properties of the Secale Cornutum, illustrated by Cases.* By Dr. THOMAS LIPSCOMB, of Shelbyville, TENN.

I am not sure that I shall be able to offer any new thoughts on the subjects embraced in the above caption, but having had my attention a good deal directed to them, and having collected a number of facts which, in a practical point of view, appear to me valuable, I have determined to submit the results of my observations to the profession. As to the origin of Moles it is known that there is still uncertainty. Generally they are regarded as imperfect conceptions, but then there are well authenticated instances of moles found in the virgin. Most writers concur in the belief that coition is indispensable to their production, and my own observation has not

furnished me with any reasons for dissenting from this prevalent opinion, but the fact just alluded to that they have been met with in undoubted virgins shows that the current doctrine on the subject is not well founded.

My object on the present occasion is to call the attention of the profession to the very frequent occurrence of moles in connection with *protracted lactation.* Can it be a mere coincidence of circumstances? I think not. It is freely admitted that we sometimes meet with them under other and different circumstances, yet if my observation is correct, a very large majority of the cases occur in connection with, and as I believe, under the influence of unnecessarily prolonged nursing. To illustrate my precise meaning: A woman gives birth to a child which she nurses for ten or twelve months, and during this period the secretion of milk exerts so potent an influence on the uterus that the catamenia does not appear. But, if I may be allowed the expression, the uterus refuses to remain dormant any longer, and the menstrual flux once more occurs with its wonted periodicity.—The nursing is continued, and often continued for no other purpose than the prevention of conception; but the object is in part frustrated, for under these circumstances conception does frequently take place. And I may ask how very often does conception under such circumstances prove an imperfect, blighted, or false conception? Might we not anticipate such a result, for although it may still be alleged that conception does not take place in the uterus, yet all perhaps agree that a vigorous and healthy condition of that organ is generally a necessary prerequisite to the development of a healthy fetus. And I think this necessity is proved to be more apparent since the publication of Tracts on generation by Professor Bischoff, of Giessen, by whose experiments the old doctrine of ovarian conception is seriously invalidated, if not positively overthrown. You are doubtless

aware that his experiments led him irresistibly to the conclusion that the mature ovum is discharged into the uterus at every menstrual period, and during its stay in that cavity is fecundated by the seminal fluid of the male. The strong and intimate sympathetic influence which continually plays between the uterus and the mammary glands, and *vice versa*, is well known. How frequently do we discover a deterioration of the mother's milk by its effects upon the health of her offspring, simultaneously with the recurrence of the catamenia! We have all witnessed this.

In a period of eighteen years, during which time I have been engaged in the practice of medicine, quite a considerable number of cases of mole, or false conception have fallen under my observation; and without hesitation I assert that a large majority of the whole number have occurred in females who continued to nurse their children after the reëstablishment of the catamenia, and in whom this function was not reëstablished for ten or twelve months after the birth of their children. I have recently solicited the opinion of several of my medical friends whose opportunities for observing have been quite ample. Some of them are satisfied of the correctness of my opinion; others have not paid sufficient attention to the attendant circumstances of their cases to speak definitely on the subject.

Not wishing to be unnecessarily tedious, I will only give a few years from the history of one individual in support of the views above advanced.

During the month of October, 1843, I was consulted by Mrs. ——, who informed me that she had taken cold, which had produced an obstruction of the menstrual discharge some two months previously. She was nursing a child some fifteen months old; and as I am intimately acquainted with her history, I know that she never menstruates until her children are about twelve months old.

This discharge had appeared some three months before, and then ceased to appear at the nsual time. She expressed herself satisfied that pregnancy did not exist, for although a good deal indisposed, she did not suffer the ordinary amount of morning sickness, and experienced periodical pains in the back and lower portion of the abdomen every four weeks. She was much annoyed with a cough of a really serious character, as I thought, threatening phthisis pulmonalis. I urged this as a reason why she should wean her child, hoping if she was not really pregnant, that ceasing to nurse might help to reëstablish the menses, and that she would soon become pregnant, which would aid in suspending the irritation of her lungs. In the course of a few days she was attacked with profuse uterine hemorrhage, when I was sent for. Upon my arrival, I suggested the probability of her laboring under a false conception, and proposed a vaginal examination, which was assented to; I found the os uteri sufficiently patulous to receive the end of my finger, with which I soon detached an organized, fleshy mass, which would probably have weighed between one and two ounces. She now consented to wean her child, and, under appropriate treatment, the irritation of the lungs soon subsided. Soon after regaining her health she conceived again, and in September, 1844, I delivered her of a healthy child, which was probably nursed something over a year. In March, 1847, she gave birth to another healthy child, which she continued to nurse for sixteen or seventeen months, and, as usual, four or five months after the reappearance of the menses. At this time, she was attacked with free hemorrhage from the uterus, when I was requested to visit her, and was informed that there had been no appearance of the catamenia for some two months. I suggested to her the probable existence of another mole, and requested permission to make the necessary examination,

to which she very reluctantly assented. I again found the os tincæ patulous, but not being able to feel any substance within with my finger, I availed myself of the wire crotchet, and soon delivered her of a small fleshy mass, after which the hemorrhage ceased. She now, acting under my advice, weaned her child, and is at this time advancing in an apparently healthy pregnancy. This lady is now about thirty-four or thirty-five years of age, has always large and healthy children, enjoys good health herself, is possessed of more than the usual amount of vivacity, and is inclined somewhat to corpulency, her temperament a compound of the sanguine and nervous.

It may very properly be said that one or two cases are insufficient to establish any principle: but many more might be adduced if I did not fear that their history would prove tedious and uninteresting. While engaged in writing this paper, the following case occurred:

February 6th, I was called on to visit Mrs. M., whom I found suffering with pains which she described as being similar to after-pains, attended with very considerable hemorrhage from the uterus. She thought she had taken cold; had not seen any monthly discharge for more than three months. I proposed making a vaginal examination, and in doing so, found the os uteri patulous, and a fleshy mass within, which, with the aid of the wire crotchet, I soon removed, it being a false conception, or mole, about the size of a turkey egg. I delivered this lady of a child about eighteen months previously, which, upon inquiry, she informed me she had nursed steadily until a month since; I made inquiry also as to how long after the birth of her child it was before the catamenia appeared; she said thirteen months. It will be observed that the false conception occurred in this instance under the precise circumstances in which it ought

to have taken place upon the theory I am advocating. I will not multiply cases, having given enough to draw attention to the subject.

I proposed in the commencement of these remarks to say a little in reference to the properties of the secale cornutum, or inquire what influences it is capable of exerting on the uterus. Does it merely increase the force of the muscular fibres of the uterus, and promote its tonic contractility, thereby enabling it to contract more perfectly and expel its contents more forcibly? These properties of the ergot are generally admitted, and perhaps sufficiently understood. But are there not other practical indications which may be more successfully fulfilled by it, than by any other therapeutic agent? I am well satisfied there are, and for the confirmation of this opinion I must detail a few years of the history of one individual. Nor do I concieve that the opinion is sustained by this case alone, but derives considerable corroboration from the known and acknowledged properties of the article in question.

Case—Mrs. C., aged about 35 years, had borne five children, the youngest, two and a half years before it walked, from apparent weakness of the spine, of which it was soon relieved by vesicating the whole spinal column, and daily use of the shower bath. Mrs. C. was of lax fibre, quite lean, and a pretty good specimen of the lymphatic temperament. At the period of my being consulted she was suffering with a sanguineous discharge from the uterus, which had existed for some time; thought herself between two and three months advanced in pregnancy. Having been called upon for the relief of the hemorrhage, I recommended rest, acetate of lead, ipecac. and opium, and subsequently, tinct. cinnamon, with tinct. mur. iron, sulphuric acid, counter-irritants to the lumbar region, ext. rhatany, sul. alumna, ext. catechu,

etc., etc., with no better effect, than partial abatement and frequent returns of the hemorrhage. This course was persisted in for some two months, by which time the general health was so seriously impaired, and the debility so extreme, that it was evident nothing but a speedy expulsion of the uterine contents could rescue her from impending death. Quickening had already occurred, and although it was perfectly plain that nothing else could avail to save the life of the patient, I thought it best to have the advice of a professional brother, before resorting to means involving so much responsibility. At my suggestion, my friend, Dr. Barksdale, was called in consultation, who immediately concurred with me in opinion as to the necessity of inducing premature labor, as the only hopeful expedient. The expulsive powers of the uterus were soon called into exercise by the secale cornutum, and delivery soon effected, when the hemorrhage immediately ceased. By the free administration of stimulants, external and internal, succeeded by a lengthy and varied course of tonics, Mrs. C. was sufficiently restored to enable her to sit up part of each day and walk through her room occasionally, in the course of three or four months, by which time she conceived again. In about two months thereafter, hemorrhage from the uterus ensued. I was again consulted on account of it. I visited her as frequently as appeared necessary, and again prescribed astringents, anodynes, rest, and tonics, vegetable and mineral, embracing some indigenous plants, but with no better success than before. There was this difference, however, before she was quite as much exhausted as on the previous occasion, the expulsive powers of the uterus were excited, and she was again delivered of a fetus, about the same period of gestation having arrived as when premature labor was induced on the former occasion. On the expulsion of the placenta the hemorrhage ceased. This substance was carefully ex-

amined in each case, especially the maternal surface, which very satisfactorily, and I may say conclusively, demonstrated that the separation had been gradually progressing, and that a considerable time had elapsed from the commencement until the separation of the other part; and in each case there was satisfactory evidence that about half of the maternal surface of the placenta had become detached from the uterus previous to delivery. Knowing that more perfect rest could not be attained in any case; that it had been rigidly observed by Mrs. C., as well as the most careful avoidance of every imprudence, I could not but refer the gradual separation of the placenta to the extreme feebleness and delicacy of the connecting medium. My past experience with her afforded me no encouragement to anticipate any benefit in this particular from the use of tonics addressed to the general system. It is true that the extremely feeble state in which this second premature labor left her, called imperiously for the use of general tonics, and they were used as freely, as her stomach would bear in every variety of combination that ingenuity could suggest. And after much reflection upon the case, I determined to add to general tonics, the moderate though perserving use of the secale cornutum, with the hope and design of imparting additional tone and vigor to the uterus.—Months of perseverance in this course, including the use of the shower bath, effected no more, apparently, than the same general remedies had before accomplished. As on the former occasion she acquired only strength enough to enable her to sit up an hour or two each day, and occasionally walk across her room. I feared the occurrence of conception again, to which there seemed an unusual proclivity, notwithstanding the general debility. The event which I deprecated so much again took place in the latter part of 1845, and in February, 1846, she was attacked with uterine hemorrhage. As she was

fully aware of her true condition, she soon advised me of it. I determined now at once, that I would not waste important time by the administration of the remedies ordinarily relied upon in such cases, and which had been so fully and unavailingly tried with her. Feeling assured that nothing would avail in her case, except by imparting tone and additional energy to the uterus, I at once commenced with ℥ss of the wine of ergot, three times a day, and gradually increased the dose to nearly double that quantity. This plan was persevered in for some two months, with general tonics for the general system. The effect was most happy: the uterine hemorrhage in a few days began to abate, and in the course of two weeks ceased entirely. As above observed, the ergot was persevered in for two months, fearing the hemorrhage might return; but it did not; she continued to enjoy tolerable health. On the last of May she was attacked with diarrhea, accompanied with some tormina. I was sent for, and saw her in the afternoon. I prescribed blue pills, ipecac., and opium, which soon quieted the irritation of the bowels. She rested well through the night, but on the evening of the next day, when the bowels commenced acting again but moderately, the fetal membranes gave way, and the liquor amnii was discharged. I was again summoned to attend her; there being now no chance to prevent premature labor, I exhibited the secale cornutum in sufficient doses to excite expulsive contractions of the uterus, which soon resulted in the expulsion of a male fetus, pretty fully developed for that period of gestation. I now made an examination, and found that there was another fetus still enclosed in its appropriate membranes, which I found upon a subsequent examination and attempt to rupture, unusually dense and strong, as, I do not doubt, the membranes of the other fetus had been as unusually weak. The last fetus expelled was a male also and as large as its fellow.

There was no hemorrhage on this occasion; and, as I think, but for the extreme delicacy of the membranes of the first fetus, Mrs. C. would have reached in safety the ordinary termination of utero-gestation. That this very desirable result would have been attained mainly, if not entirely, through the agency of the ergot, I think none can doubt. It accomplished all for which it was administered; it prevented the detachment of the placenta in this instance, which had occurred on two former occasions; and thereby speedily and effectually controlled the hemorrhage which had commenced as before, and at just about the same period of utero-gestation. This, too, was accomplished under somewhat less favorable circumstances than before existed; for all will admit the powerful influence of habit, even in the production and maintenance of diseased action; and this was really the fourth time that hemorrhage had occurred under the same circumstances with this lady. The first time was previous to my acquaintance with her, and of course I could not detail the particulars of it, but the period of occurrence, and the result were the same as in the two first instances of which I have given a detailed account. Unfortunately, the husband of Mrs. C. died in about two months after her last labor, thereby preventing any farther opportunity of testing the remedy with her, and I have not met with a similar case since.

Professor Dewees recommended the ergot in cases of menorrhagia of long continuance, where the continuance of the discharge was more annoying than the quantity injurious, but not in cases where pregnancy existed. It will be observed that I used it for a different purpose, that of imparting specific tone and energy to the uterus, and that an early period of pregnancy, for the purpose of maturing a firmer connection between the placenta and uterus, and thereby remedying that peculiar state of things to which the hemorrhage owed its existence.

There are other practical indications which can be equally if not more successfully accomplished by ergot than by any other medicinal agent. I will only mention one, and for this purpose I do not recollect to have seen it recommended, although readily inferable from its acknowledged properties. I mean for the prevention or cure of after-pains.

February, 1849.

ART. II.—*A Case of Uterine Hemorrhage following the expulsion of the Placenta.* By L. P. YANDELL, M.D.

The following case is submitted to our readers, not because it possesses anything novel, but because it illustrates some practical points in obstetrics which cannot be too well understood.

Mrs. M., aged 32 years, the mother of two children, was brought to bed with her third at 10 o'clock on the night of the 27th of February. I was called to see her at 3 o'clock in the morning, five hours after the labor commenced, and on examination found everything favorable. The vertex was presenting, the os uteri was considerably dilated, soft and yielding, and but for the representation of the patient that her previous labors had been tedious, and the fact that her pains were then slight, I should have promised her a speedy delivery. The circumstances of the case favoring it, I had recourse repeatedly to my friend, Professor Miller's favorite expedient of orificial irritation; but, either for want of skill, or from not persevering long enough, I did not succeed in bringing on efficient uterine contractions. At 10 o'clock, twelve hours after the beginning of labor, I was not sure that the head had made any progress, or that

the pains had increased. I was obliged to be absent for some hours, and at 11 o'clock my son, Dr. D. W. Yandell, took charge of the case. He informs me that, for more than two hours, the pains continued feeble and inefficient; the membranes were never distended, and, with the pressure of his finger nail that it appeared to him proper to employ, he was not able to rupture them. About half past 1 o'clock a violent, long-continued pain came on, followed in a few seconds by another which expelled the head. The membranes came before it and were ruptured as the head was about being born. I delivered the placenta in about twenty minutes after the birth of the child, the uterus feeling hard and well contracted.

We left our patient in apparently a safe and comfortable condition, and did not see her again until 6 o'clock in the evening, when I called and learned that, soon after we left her chamber, flooding came on and had been profuse. Her face was blanched and she was nearly pulseless, but the hemorrhage seemed to have ceased. I applied my hand over the abdomen and felt the womb contracted into a ball. The bandage was reapplied as tightly as was comfortable, and sixty drops of laudanum given. Her pulse rose, and for half an hour things appeared to be going on well, when symptoms of syncope returned. I resolved now to ascertain the cause of the hemorrhage, and accordingly introduced my hand into the vagina and pushed it gently forward into the cavity of the uterus, which I found filled with coagula. It was contracted pretty firmly upon its contents, and I found some difficulty in turning my hand about. The friction necessary to detach the coagula brought on efficient contractions, and on withdrawing my hand the coagula were forcibly expelled after it. There was no further hemorrhage, and the woman suffered less than

was to have been expected from so serious a loss of blood. In fact, she had a good recovery.

The evils in this case originated in the first stage of the labor, which was unnecessarily tedious; the consequence was the too rapid progress of the second stage, and the hemorrhage which followed the separation of the placenta. Orificial irritation continued for a longer time and with more energy, might have accelerated the first stage; and it is certain that advantage would have been derived from rupturing the membranes at an earlier period. The expulsive efforts of the womb would thereby have been increased, and the fetus being born, the tonic contraction would have been more prompt and complete. The only remedy that would have availed in the state of things which existed when I saw the patient at six o'clock in the evening was the one resorted to—the introduction of the hand into the cavity of the uterus.

March 15, 1849.

ART. III.—*A Case of Moral Insanity.* By B. M. WIBLE, M. D., of Louisville, Ky.

The subject of the following report, Robert M. Ewing, was 21 years of age, muscular, moderate embonpoint, about five feet ten inches high and well formed, had blue eyes, dark stiff hair disposed to stand erect, and sanguine complexion.

In 1841 he had an attack of convulsions, followed by coma, which persisted about thirty hours, from the effect of which he recovered slowly. As soon as his health was sufficiently restored he was sent to a school in the city, where he had been but a short time when he began to exhibit indications of violence of temper entirely new to his character. He would frequently become involved

in difficulties with his school mates, which would often end in some act of violence, for which he would immediately manifest the greatest sorrow, in such manner as soon to pacify all concerned. A difficulty, however, occurred with his teacher which caused his removal from the school. It was remarked by his friends that, after his recovery from the attack above noticed, there was a change in the expression of his countenance, which began to wear a constant, fixed frown, whereas before the attack his countenance was remarkable for a frank, open expression. On being removed from the school he was placed in charge of a relative in the country, where he continued to manifest the same kind of temper, having repeated difficulties of a more or less violent character, all growing out of, or connected with, some imaginary slight or indignity by which his pride would be wounded. From this time he was sent from college to college, and from place to place, in the vain hope of finding some relief for his waywardness of character, and his morbid pride, which was so constantly the source of his difficulties. He had now become restless and fond of change, would soon tire of friends and places, seem happy on every new change of residence and delighted with every new associate, but would in a very short time desire another change, it being impossible to keep him contented at any one place. From his situation in the country he was sent successively to St. Mary's, St. Joseph's, Hanover, Indiana, Lexington in Virginia, a private school in the mountains in Virginia, and the University of Virginia, with all of which he was at first delighted, but of each of which he soon tired, and left either without permission or in consequence of difficulty.

On leaving the University he went to Washington City, Philadelphia, New York, in each of which places he was found by friends of his father, who tried to induce him to return, but on getting money from them would become

wild with excitement and forget his promises, until again found destitute, and was only brought home finally by a friend who kept him under observation until he came back. Before his return, however, his father consulted Mr. Wolfe, and Maj. Butler, in reference to the plan he should adopt with him, and expressed to them his fears that his mind was diseased, but no particular course was decided upon, and he was placed successively in the clerk's office of the county court, and of the chancery court, but he soon became disgusted with these pursuits, and was advised to undertake a journey with Mr. Bryant and other of his acquaintances to California, and proceeded as far as the eastern base of the Rocky Mountains, when he had difficulties with his associates, returned home, and disappointed the hope, that the trip would exert a salutary influence on his mind.

His father, still convinced that he was laboring under mental disease, again consulted his lawyers with a view of obtaining a writ of lunacy, to place him under moral and medical treatment, but his counsel advisedagainst it, fearing the effort would prove abortive, and as a consequence, he might imbibe hatred towards his father, and be driven to excesses greater than those of his previous life. After this he went to Russellville to study law with a relative, but in a short time got into numberless difficulties and returned home. Soon after this he became still more reckless and wayward, in consequence of a failure to win the affections of an estimable lady, to whom he had long been attached—and he determined, against the united wishes of his friends, to join the army. At the urgent solicitation of his father, however, he agreed to return to Russellville, and proceeded on his way as far as the mouth of Salt River, where he met Capt. Churchill recruiting a company of voltigeurs for the Mexican war. Without a moment's reflection, in accordance with his usual course of conduct he left the carriage,

and joined the company as a common soldier. His father expostulated with him upon the folly of his course, but all expostulation was fruitless, in consequence of a delusive hope which, with him, amounted to thorough conviction, that he would soon be promoted to a high position and rank in the army. After arriving at Vera Cruz and joining his regiment, he was made sergeant-major, but the duties proved irksome to him, and becoming dissatisfied, he exchanged places with a private belonging to another company, again went into the ranks, and was in this position at the battles of Conteras and Cherebusco. During the armistice that followed, by the aid of friends, he employed a substitute, became a follower of the army, and remained with it during the subsequent battles. He staid in the City of Mexico after it was taken by the American army, five or six weeks, entered into various speculations, made several thousand dollars, but, with a prodigality peculiar to him, spent it all, and when he arrived at Vera Cruz was without a cent. His wayward conduct led the officers, with whom he associated, to look upon him as laboring under mental derangement. Mr. Vertrees, a member of the company to which he belonged, and the present representative in the Legislature from Hardin county, relates that, from near one of the gates around the City of Mexico, directly under the protection of the Mexican batteries whilst in action, he drove out three or four hundred mules and beef cattle to the camp of Gen. Twigg's division of the army; and the commanding officer witnessing this conduct, and forming a subsequent acquaintance, regarded him as laboring under mental disease. On his way home, at Vera Cruz, he got into the greatest difficulty, and returned to Louisville in March, 1848, and from that time until October, had many desperate affrays with his friends and associates, and finally, October 9th, had the unfortunate rencounter, for which he was confined in the Louisville jail.

His general health previous to his confinement in prison was usually good, and though he was extremely susceptible to external impressions, he possessed great power to resist them, but his mind appeared to be controlled entirely by surrounding influences. His face was generally flushed, the brows contracted, the eyes prominent and more or less injected, and he did not sleep, on an average, more than five or six hours during the twenty-four. He talked much of pecuniary matters, entertained various plans for making an immense estate, and seemed to believe that he would be worth hundreds of thousands of dollars, yet he was prodigal with money, and when he had it in possession seemed not to be contented until he wasted it. He drank occasionally but it was seldom to intoxication, and the effect of spirituous liquor upon him was variable; sometimes it would calm him, and at other times increase his natural excitement. Soon after his confinement in jail he became costive, and took strong cathartic medicines for a week before they acted; among them a dose of calomel, which ptyalized him, and he was troubled with spectral illusions, seeing cats sitting on his breast, bugs and flies on the wall or on his dress.

Dec. 2d. I visited him in the evening, found him excited, talkative, and supposed, from his manner, that he had been drinking, but was assured he had not since his confinement. During the following night he had several violent convulsions. Dr. J. W. Knight visited him, saw him in one of them, and at the time believed he would die immediately. He bled him twenty ounces, gave a drachm of laudanum, and there was no return of the convulsions during the night. I visited him next day, found him alarmed, frowning and starting when touched, pulse variable, but in the main full, compressible, and about 80. Had some headache, required cold wet cloths constantly to the scalp; noise from moving a chair or newspaper in the room distressed him, and he was appre-

hensive of a return of convulsions, and would not consent to be left alone a moment. During the following week most of the foregoing symptoms continued, and he remained restless, frequently changing his position in bed, was entirely sleepless, had frequent vomiting, and voided large quantities of colorless urine. Once he had retention of urine requiring the catheter, and at another time said that he felt like the convulsions were about to return. He took various cathartic medicines, among them, infusion of senna and rhubarb, which operated freely, and on Monday morning, a week after the attack of convulsions, he was found extremely prostrated and entirely blind.

He was now removed from jail to his father's residence; reaction soon took place, attended by some fever, and on visiting him the following day he remarked that he could see me, though indistinctly, and some few hours afterwards his vision was almost entirely restored. He was still sleepless, remained so during the night, and the next morning the convulsions returned with their former violence, and Dr. Knight again bled him twenty ounces. The next day Dr. H. M. Bullitt was called in consultation, and we found him in the following condition: lying in bed with a flushed face, contracted brow, giving the countenance the expression of an angry frown; eyes prominent, with a wild and more or less fixed stare; pupils contracted. His manner abrupt, and his speech hurried, though his answers to questions were given with apparent reluctance, as if afraid of making mistakes. He complained, when interrogated as to his feelings, of fixed uneasiness in the region of the occiput, and sense of tension through the temples. Said that yesterday the palm of his hand reflected his face like a mirror, but is conscious to-day that it was a spectral illusion. He remarked to me that I looked unnatural. His hearing is so acute that he is disturbed by the slightest noise, no-

tices everything that is said or done in his room, and recognises instantly every one that enters. He has frequent spasmodic jerkings of the muscles of one limb only, but occasionally affecting the whole muscular system. Does not like to be approached and touched suddenly, and is disturbed by having his bed subjected to the slightest motion, any sudden impression exciting muscular twitchings. He has not slept for several nights; pulse 58; impulse of the heart very violent; surface uniformly warm, though he complains of heat about the head. Bowels inclined to be costive, though acted upon yesterday freely by cathartics; urine less high colored than natural, very copious, and voided without difficulty. Stomach somewhat irritable, and disposed to reject both food and medicines. Thirst somewhat urgent; says he has appetite, but his stomach retains nothing but black tea and toast.

Under the impression that there had been some manifest tendency to periodical exacerbations, quinine and opium were prescribed, with the three fold view of counteracting the periodical tendency, allaying the extreme excitability and muscular twitchings, and procuring sleep. In consequence, however, of the irritability of the stomach, but one dose of the medicine was given, and on the following morning at about half past 8 o'clock, we were summoned in great haste to visit him, and found him on his back, breathing with great energy and rapidity, with his face greatly flushed, and the peculiar appearance of his face and eyes, noticed yesterday, were more marked. He had a negro man lying across his knees, and was calling incessantly for the application of cold water to his head, and begging to be bled. On examining the pulse we found it 120 in the minute, large and strong. His whole muscular system was slightly convulsed every few minutes, and this incessant spasmodic action was so violent in his legs that he kept the

negro man lying across his knees to prevent the sudden and painful flexion, to which they were liable every moment. In about half an hour after we arrived his entire system became violently convulsed, every muscle seeming to be affected. The contents of the stomach were spasmodically ejected, and the entire body kept in convulsive agitation as if by successive discharges of a powerful galvanic battery. He continued in this condition for some minutes, and was calling incessantly during the whole time for water to his head and for the lancet, until the muscles of the glottis became implicated, respiration suspended, and entire relaxation of the system, with cessation of the pulse at the wrist, put an end to the paroxysm. On recovering from this state of relaxation, which he did in a few minutes, the pulse resumed its volume and frequency, and the impulse of the heart its strength, the face its flushed condition, and the muscular system became again affected as described on our entrance into the room. When interrogated he complains of no pain except that already refered to in the region of the occiput, and the sense of tension through the temples. Sixteen leeches were now applied to his temples, and warm water applied for several hours to encourage the bleeding, but notwithstanding this depletion there was a recurrence of another paroxysm similar to the one just described; making the third in the course of the forenoon: one before we saw him, and two whilst we remained with him. After the third paroxysm he was left in a state of extreme nervous impressibility, the slightest noise or motion of the bedclothes producing spasmodic movements of the muscles. During the remainder of the day he insisted upon having cold water applied to his head, and kept the negro boy lying across his knees; was restless and anxious from apprehension of a return of the convulsions. At bedtime blisters were

applied to the top of the sternum and to the inner sides of the calves of the legs, and he remained throughout the night comparatively quiet, though prevented from sleeping by the constant twitching of the muscles and perhaps by *mental* excitement.

On visiting him the next morning we found him lying on his right side coiled up in bed with the bedding carefully tucked under his body, with hot bricks to his feet, and the cold application to his head. He could with difficulty be induced to change his position in bed for a moment at a time, and when the bedclothes were at all disturbed by his change of position, he would call upon his attendants to tuck them under, his commands being in these terms—"tuck me, tuck me," and this call was made incessantly through the night, and was being made every moment during the time we remained with him, and yet on questioning him we could not get him to admit that he felt at all cold or chilly, nor could we elicit from him any reason for his obstinate persistence in lying on his right side. The peculiar frown, the wild and staring eye, the reluctant but hurried answers, the muscular twitchings, the quick perception of whatever was said or done in the room, the constant call to be 'tucked,' the demand to be bled, and to have cold to his head, thirst, uneasiness in the occipital region, sense of tension through the temples, slight nausea, with a pulse 108, large and strong, and violent impulse of the heart, with uniform warmth of the surface, were the noticeable symptoms at this visit. We also now for the first time had our attention particularly drawn to obstinate priapismus which he said had been annoying him for several days. We ordered twenty leeches to the mastoid region, and the bleeding to be encouraged by the application of warm water, and his bowels to be moved by enema. This treatment seemed to make no decided im-

pression on the symptoms, the uneasiness in the occipital region and the priapismus continuing. Calomel and opium were given with the view of procuring sleep, and ptyalizing, but all the symptoms remained without material modification, except the pulse which exhibited repeated sudden changes in frequency and force, until the morning of ——,* when there was a return of the convulsons. This time the convulsions were more violent than before, but in all essential respects identical with those described above. There were several recurrences of them during the day, and in several of them the suspension of respiration was so prolonged that dissolution was apprehended. After he had completely rallied from the last one, we determined to bleed him, and accordingly drew from his arm a pint of blood, with the effect of reducing the heart's action and producing free perspiration. In the course of an hour after this bleeding there were indications of another convulsion, and his arm was untied and blood allowed to flow to the amount of another pint, so that he lost in all about thirty-two ounces of blood. After this depletion he became much more calm, the muscular twitchings became less troublesome, but the other symptoms continued.

He had not slept more than an hour at a time since the first visit with Dr. Bullitt, and his sleep had been disturbed by startings and muscular spasm to such an extent that it was doubtful whether he had been at all relieved by it. It was therefore determined to procure sleep if possible, and also to bring him under the influence of mercury. With this view he was ordered small doses of calomel through the day, and at night morphine

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* Near three weeks from the time he was taken home, but the exact date not remembered.

in grain doses every two hours until he slept. He took in the course of the night five grains of morphine, with no other effect than that of rendering him less restless. For several successive nights the effort to induce sleep was repeated, and the calomel continued during the day. Laudanum was used by the rectum and by the mouth without any decided effect. In a few days his stomach became so irritable that the calomel had to be discontinued. His bowels were moved whenever it was thought necessary without difficulty, either by injections or by mild cathartics administered by the mouth, and the discharges were always natural in appearance. Urine continued to be voided in large quantities, but the symptoms first noticed remained without modification.

His strength was such that he could get up to stool without assistance, and notwithstanding the depletion, his face was still considerably flushed. His appetite was capricious, sometimes craving strong food, and again revolting at everything in the shape of nourishment, but his stomach did not at any time retain anything stronger than tea, and it was remarked that animal broths or jellies produced an increase of arterial excite ment.

Soon after he was removed home, we noticed great capriciousness of conduct, and occasional wandering, when there was nothing to excite his attention. At one time he would not allow any one but his sisters to be near him, and then, without cause, he would abruptly order them from the room, and request the attentions of his father, who, in his turn, would be sent off, and a negro man, who assisted in nursing, called. This disposition to change his attendants was constantly manifested, and he never could be induced to give a reason for it, but when reminded of his strange conduct, would express the apprehension that he was becoming idiotic. Finally, in the course of a few days after the last at-

tack of convulsions, he became decidedly delirious. At first his delirium was such that he could be made to understand his situation, and after continuing several days passed off, and left him in the condition in which he was previous to its occurrence. But after a short lucid interval it returned in so marked a form that he could not be reasoned with at all. This delirium continued with occasional lucid intervals until within a few days of his death, when he became more rational, so that we could control his mind whenever his attention was excited. During the whole of this time he did not sleep soundly more than once, and that was for about six hours, after taking large doses of digitalis and hyosciamus.

It would be useless to detail the treatment from day to day; indeed it would be impossible, as no notes of the case were taken at the time. Sufficient, that bleeding, both general and local, tartar emetic, digitalis, opiates, hyosciamus, blisters, etc., etc., were tried without the slightest favorable effect. Indeed we were in doubt whether any of these medicines produced any of their appropriate effects. Some of them were used in extraordinary doses without the slightest effect.

He expired on the 6th of January, about five weeks after the supervention of convulsions, and three months after he was arrested.

Inspection of the brain forty-eight hours after death disclosed the following appearances: Very firm and extensive adhesion of the dura mater to the inner table of the cranium. Distinct opacity of the cerebral portion of the arachnoid on the upper surface of the hemispheres, and over the cerebellum. Effusion of serum into the cells of the pia mater generally. Immediately around the verriform process of cerebellum limited effusion of lymph. Extreme vascular engorgement of the membranes covering the cerebellum and medulla oblongata.

On cutting away the cerebral substance from above downwards, it was found of ordinary firmness until we reached the corpora striata and optic thalami, in both of which there was evident softening. The left optic thalamus was of the consistence of thick cream, the corpora striata and right thalamus about that of cerebral matter in the incipient stages of decomposition. Effusion into the lateral ventricles of a straw colored liquid of the consistence of synovial fluid, to the amount of about two drachms in each ventricle. The fourth ventricle dilated to about four times its natural capacity. The fluid which it contained had escaped in removing the brain, and remained in the occipital fossæ in part. It was similar in character to that found in the lateral ventricles, and was supposed to be about half an ounce in quantity.

In a legal point of view this case is deeply interesting; and the conclusion to which we have arrived is, that the strange aberrations of conduct to which he was liable, resulted from undue mental excitement dependent upon a pathological condition of the brain. We arrived at this conclusion before the convulsions supervened, and if a lingering doubt had remained, every vestige of it would have been removed, by the subsequent history of the case, and by the appearances which the post-mortem examination revealed. In this view of the case we are further confirmed by the concurrence of various physicians of respectability, who witnessed the progress of the case, and became acquainted with its history, and still further by others who came to the same conclusion by simply observing his countenance, and the expression of his eyes.

To what extent such a person should be held responsible for his acts, is a question of deep interest to the philanthropist. It seems to us, that his conduct being

the result of disease of the brain, *or of that species of moral insanity denominated "undue mental excitement,"* he should have been subjected to no harsher treatment than that of confinement in an asylum for the insane. The severe penalty which the law imposes for the act for which he was imprisoned, could not have been applied in his case by any enlightened and christian jury.

March 12, 1849.

REVIEWS.

Art. IV.— 1. *The British and Foreign Medico-Chirurgical Review.*

2. *The London Lancet*, for January and February.

3. *The true Pathological Nature of Cholera, and an Infallible Method of treating it.* By George Stuart Hawthorne, M.D.

4. *On the Cryptogamous Origin of Malarious and Epidemic Fevers.* By J. K. Mitchell, A.M., M.D., Professor of Practical Medicine in Jefferson Medical College. Philadelphia: Lea and Blanchard. 1849.

The return of Cholera to this continent, in the exhibitions of its power and devastations in the northern and southern emporiums, has awakened a renewed interest in the minds of medical men and of the great public as to the characteristics of the present visitation, and the results of an enlarged experience in the treatment of this formidable agent of death. Our object in the present paper is to give as concise a view as possible, of all the interesting features of cholera: its history, its character, and its treatment.

We believe that the disease is intimately connected with malaria; we are sure that it is always found in connection with a certain conjunction of solar heat, moisture, and decaying vegetable matter. The facts on this subject are so multitudinous, so clear, precise, and unmistakeable in all cases where *all* the circumstances, attendant upon epidemic cholera, are well known, that it

is in accordance with Newton's great laws of philosophy for us to assume the existence of the causes of malarial formation for every point where cholera has appeared. These laws are:

"*First.* We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances.

"*Second.* To the same natural effects we must, as far as possible, assign the same causes.

"*Fourth.* In experimental philosophy, we are to look upon propositions collected by general induction from phenomena as accurately, or very nearly true, notwithstanding any contrary hypothesis that may be imagined, till such time as other phenomena occur, by which they may either be made more accurate, or liable to exceptions."

These rules cannot be too indelibly impressed upon the minds of medical investigators. If they are faithfully applied, they cannot fail to guide the inquirer to the paths of truth. In a survey of all the recorded attacks of cholera, in every part of the earth, we have faithfully applied these laws for philosophising, and in our judgment nothing can be more certain than the fact that cholera is universally a malarious disease. We have not adopted this as a favorite hypothesis; we went to the study of epidemic cholera not to prove a theory, but to learn the truth. While investigating cholera in a particular place, we faithfully examined everything that had been said about the attack at that place; then we examined the topography of the locality, and applied the facts of physical geography to each and every investigation. The result was that the malarious origin of the disease was clearly and firmly established. Meteorology is another branch of medical science that is fast rising into great importance, and it is destined to shed a flood of light upon a great number of medical questions, and

to none will it impart more than to the habitudes of malaria. This science lent us no little aid in our investigations respecting cholera.

We cannot here dwell upon the proofs of the malarious origin of cholera, but our readers may rest assured that the doctrine rests upon immutable truth, and we do not know a fact that stands in opposition to it. But before leaving this part of our subject, we beg leave to urge upon our readers the great importance of a diligent pursuit in everything that can throw light upon the subject of malaria, and upon epidemic diseases. There are certainly no finer, nor wider fields for the medical inquirer than these, and they have not yet been exhausted. In addition to a thorough understanding of malaria itself, the medical investigator should make the truths of physical geography and the facts of meteorology as familiar companions, as the letters of the alphabet are to him. These solid and invaluable sources of medical knowledge are too often neglected;—they cannot be too well impressed upon the mind of him who wishes to arrive at truth, that priceless jewel in all earthly matters.

When cholera was making its approaches to Europe, a general suspicion existed that it was contagious. The most rigid quarantines ever established sprung up in consequence of this suspicion, and a torrent of error swept over Europe as the *avant courier* of the epidemic. Among the prominent sources of error, was the idea, most industriously circulated, that cholera was a new disease, one that had never been heard of before its appearance at Jessore in 1817. One of the results of this present error was the search after a new cause for this new epidemic, and the shortest mode of solving all the difficulties of its etiology was to pronounce it contagious. Enlightened and philosophichal investigations, however, established the fact that cholera is not by any means a

new pestilence, but an old and familiar form of disease. Sydenham described it among the summer diseases of England, and some of his cases of cholera morbus were unquestionably, by his description, cases of what is now called Asiatic cholera. Mr. Corbyn, a very intelligent surgeon of the Bengal establishment, published a work on cholera in 1832, and, upon a long experience in the disease, states the following conclusive fact: "In 1814, I was myself eye-witness to the destructive operation of this disease (cholera) on board the ship *Mangles*, on which I embarked for India. *We had been at sea about two months, when it burst forth with awful violence.* During the short period of six weeks, sixty-four bodies were thrown overboard, and four men died one after another just as we had cast anchor in Table Bay." This extract is full of instructive truth. Here was a vessel which left an *English port* in 1814, and, after being out at sea two months, was visited with this awful pestilence *three years before the appearance of the disease at Jessore.* Sixty-eight persons died of cholera on the ship before she reached the Cape. It is evident that there was no contagion in this case; the cause of cholera on the *Mangles* was formed in the hold of the vessel, and the common opinion, even among medical men, that cholera never was heard of before its outbreak at Jessore in 1817, is thus shown to be very erroneous. And at this point we beg leave to call the attention of the reader to an impressive fact that has urged itself forcibly upon our attention in the investigation of epidemic diseases on ships at sea. In some instances yellow fever has almost depopulated a ship, in the midst of the ocean, and when the ship was examined in the hold it was reported perfectly clean, and free from all sources of malaria. These things were very mysterious until light was thrown upon them by the case of the ship Pergamus. That vessel suffered severely with yellow fever, and upon ex-

amination her hold was pronounced clean, until what are called the *limber* boards were torn up; then a mass of putrefying vegetable matter was found in sufficient quantity to account for the awful distemper. These facts show the necessity of a thorough examination in all attempts to scrutinise the source of disease. The confined hold of a vessel may make malaria, and hold it even when there is wintry weather upon the decks, and there are situations on land that may do the same, as we shall see hereafter. But, to return, we have established the fact that Sydenham describes cholera, in his works, among the English summer diseases. He says that it is as certain to appear in summer as swallows are. We have also proved, by Mr. Corbyn, that this awful distemper showed itself on the ship *Mangles* in 1814, three years before its supposed origin at Jessore.

The idea that cholera appeared in England in 1832, for the first time, is almost as generally entertained, as that the disease originated in Jessore in 1817. But Dr. Thackrah, of Leeds, has conclusively demonstrated that the disease prevailed extensively at Leeds in 1825. That well informed gentleman gives some valuable meteorological facts, as the precursors and attendants upon the disease in 1825, and if all medical men would as carefully record such truths as these, we should have no difficulty in reaching true conclusions respecting the cause of cholera. Dr. Thackrah says: "In May, 1825, three-eighths more rain fell than the usual quantity; and the wind was east nearly the whole month. In June the weather was showery, and, on some days, *particularly sultry;* on the 12th the thermometer reached 87°; the wind was variable; but principally west. In July the weather was sultry, barometer high, winds variable, and the quantity of rain particularly small, not exceeding one-fifth the usual quantity. About the 3d of August, the drought which had prevailed for several weeks, was

relieved by refreshing showers; during this month the quantity of rain exceeded the average, the weather was sultry, the barometer low, and wind generally west." Now let the reader mark the exhibition of the disease, and compare it with the above meteorological facts. Dr. Thackrah says: "In May and June, cholera appeared under its usual form. A great number of individuals were attacked, but few died. *The symptoms were such as appeared in the common cholera, therefore need not be specified.* But in July and August the disease assumed a more aggravated character. The mode of attack, and the progress of the disease, differed from the preceding cases, and the result was more fatal."

"A person would be suddenly attacked at work, or on returning to his home, or in bed, with pain in the abdomen, particularly around the umbilicus, purging almost immediately ensued, first, of common feculent matter, but the intestinal contents being soon evacuated, there followed watery or mucous stools, with excruciating tormina before each evacuation, continual and urgent calls to stool, and painful tenesmus. If appropriate remedies were at this stage promptly applied, relief was generally obtained. Some cases, however, baffled every endeavor to mitigate them; while others admitted of temporary relief; but soon the disease would reappear, and with augmented vigor. *The most alarming prostration of strength would come on, with vomiting and purging of large quantities of fluid, resembling gruel or barley water, occasionally of the color and appearance of a solution of mashed peas: cramps of the legs, and sometimes of the arms; intense spasmodic contractions of the abdominal muscles; pulse quick, and often imperceptible; skin cold and clammy, sometimes confined to the extremities, at others extending over the whole surface; countenance vacant; face of a most ghastly aspect; eyes sunk in the orbits and motionless, the eyelids and around of a purple, or more correctly of a leaden hue; lips purple; the face, even of a young and plump individual, became contracted like to the face of a toothless old man in a few hours; the patient would lie on his back with*

the extremities extended, the arms lying by his side; the skin of the fingers corrugated, and the cellular tissue beneath exceedingly dense, in short, it was like the hand of the dead; respiration slow, laboring, and imperfect. Brandy, opium, ammonia, and every stimulant that could be suggested, in conjunction with artificial heat, and friction over the body would fail to resuscitate. In the course of a day, or often of a few hours, death would result.

"*In other cases the disease would suddenly appear in all its malignancy, without any premonitory symptoms. The patient would sink in two or three hours under accumulated agonies, without even the slightest reaction taking place.*"

Dr. Ayre also describes an epidemic cholera in England in 1817. His publication was made in 1818, and there is no difference between the cases he then described, and any that have shown themselves since. Dr. Ayre described the symptoms in 1818 of the epidemic of the previous year, in England.

These conclusive facts show clearly that the common opinion, and uniform representation, that cholera showed itself at Sunderland, England, in 1832, for the first time, are great errors. The representation that the disease displayed its powers at Jessore, in 1817, for the first time in the world's history, clothes the distemper with a mysterious and marvellous character that is inconsistent with its true nature. The fact we have given from Mr. Corbyn proves, that the disease broke out, in 1814, in an English vessel, on its outward bound voyage from an English port, after the vessel had been out at sea two months. And Mr. Corbyn is competent authority on the subject, for he had an extensive acquaintance with the disease in India, up to the publication of his book in 1832. The pamphlet of Mr. Thackrah, describing cholera in Leeds, England, in 1825, not only completely dispels the notion that cholera was a new disease in England, in 1832, but also establishes its malarial origin, by the

meteorological facts we have quoted from the pamphlet, the topography of the localities where it prevailed in Leeds; and by the fact that other recognized forms of malarial disease were present with cholera, and that the latter kept pace with the former. If cholera in its epidemic form has ever been, in any one case, the result of malaria, that is the universal cause of it, according to those rules of philosophising which were propounded by Newton, and which all subsequent philosophy has confirmed.

We have shown thus clearly that cholera prevailed on the ship *Mangles* three years before the point of time almost universally set forth for its origin, and that it was in Leeds, England, seven years before the time generally named for its first appearance in Great Britain. But we shall now ascend higher. In a letter, written by Dr. Paisley at Madras, dated 12th November, 1774, we have an accurate account of cholera, and he says it often prevailed epidemically. *Sonnerat*, whose travels in India occupied the time between 1774 and 1781, gives a very fair account of epidemic cholera, on the Coormandel coast. Between Cherigam and Pondicherry, about sixty thousand persons perished. The investigations of the Madras board, go to establish the fact that "*Cholera maintained its influence, with little apparent interruption, from a very remote period, down to a date comparatively modern.*" A committee of British medical officers at Mauritius, report that, "from the statements of several individuals, some of whom belong to the medical profession, it does appear, that a disease, most strongly resembling in its symptoms, progress, and termination, that now under consideration, (the cholera of 1819), did for sometime prevail in this colony in the year 1775."

In 1781 cholera prevailed extensively as an epidemic at Gangam. On the 22d of March, 1781, a division of

British troops, marching to join Sir Eyre Coot's army, was attacked at Gangam. The cholera assailed the soldiers severely. "Men previously in perfect health dropt down by dozens; and those even less severely affected were generally dead or past recovery within less than an hour. The spasms of the extremities and trunk were dreadful: and distressing vomiting and purging were present in all." It prevailed in many other parts of India in the year 1781.

In 1782, Curtis noticed the disease in India, and describes outbreaks of the disease from 1782 up to 1787, in various parts of India. Curtis describes the disease with great accuracy. He observed that it prevailed in malarial periods, and that cold weather stopped its ravages.

Girdleston describes cholera at Madras in 1781. In 1783, cholera destroyed 20,000 people assembled at a festival. From the investigations of the Bengal board, it is plain that there are medical reports of the existence of cholera in India from 1769 down to the present time, and we have no doubt, it has existed ever since malaria began to show its powers on man.

In addition to the testimony of Mr. Corbyn, on the existence of cholera on the ship *Mangles* in 1814, we have the statement of Mr. J. Tryllie that the disease exhibited itself in India in 1814. Mr. Cruikshanks also states its extensive prevalence in India in 1814. And here is an important fact, which throws much light upon the difficulty of tracing cholera prior to 1817. The fact is this: although it is evident that cholera prevailed extensively in 1814, "*no trace of it is found in the public records*, and but for the incidental remark of Mr. Duncan, made five years after the occurrence, and we had been able most fortunately to refer to Mr. Cruikshanks, the medical returns of the corps never could have led to a knowledge" that the cholera had existed

in 1814, among the British troops. "Hence," says the *Medico-Chirurgical Review*, "though cholera very rarely appears in the sick returns of former times, *it is by no means to be thence inferred that it did not then exist.*" This is a very important fact to be borne in mind, in tracing the history of cholera. Here, when we know that cholera prevailed severely among the British troops in 1814, we are unable to show the fact from the medical returns of the very troops that had the disease; but we have no doubt it has often prevailed in Europe under the names of "Black Death," and "Sweating Sickness," though, from the imperfect reports of medical men of that day, we are unable to distinguish clearly, what they referred to in their statements respecting the distempers of the 13th, 14th, and 15th centuries. There are evident traces of cholera in some of the accounts of the "sweating sickness" at Marseilles.

We have said enough now to disrobe cholera of those mysterious and marvellous garments, in which it was supposed to be enveloped, by the suspicion that it made its advent into the world in 1817, at Jessore. It was reasonable to suppose that, if it then appeared for the first time, it must be dependent on some cause that had never been in existence before, because if the cause of cholera had previously existed, its effects must have shown themselves. But we have established the fact that it prevailed as an epidemic frequently from 1760 down to the present time, and we present a cogent fact, which shows that even the silence of medical reporters on the subject, is no proof of its non-existence. We repeat, that there is no reason to doubt that cholera has prevailed in the world as long as cholera morbus has, and we know that that is no new disease.

The question is often asked, why is it that cholera does not prevail in every season suitable for the production of malaria? but we might as well ask why any other

form of malarial disease does not prevail every season. Meteorology and natural philosophy, will yet make important revelations on these points; solar heat, one of the most important elements in the production of malaria, is much better understood now than it was a few years ago, and there are large fields of inquiry yet remaining in the subject. And when meteorology is universally studied by observation, over the whole earth, under all the modifications of climate, we shall begin to understand the minute details of etiology. To make ourselves correctly understood, let us take an illustration. The annual mean temperature of the earth is the same year after year, and has probably always been so; but in some years, particular localities have unusual elevation of temperature and an unusual amount of rain, and these localities, which are usually healthy, may, under these unusual circumstances, become seats of pestilence. In 1832, Lexington, Kentucky, which is ordinarily one of the healthiest cities on this continent, had sporadic cases of cholera in malarial spots, but in 1833 she had one of the most awful visitations of the pestilence that has been known in this country, and meteorology explains why it was so. There was an elevation of temperature, and almost a continuous fall of rain for a month, utterly unlike anything of the kind ever known there before; these, acting upon the flat, undrained part of the town, which part had been the receptacle of the filth of the town for some years, produced the pestilence. The epidemic broke out in the part of the town we have named, and spent a large part of its violence in the localities influenced by that flat, undrained part of the city. The phenomena of cholera, at Lexington, in 1833 would be entirely unaccountable, but for the meteorological facts we have named. The disease showed itself too in New Orleans in the depth of the winter months

of December and January, but meteorology explains this phenomenon. The thermometer stood at summer heat, and there was a great amount of rain, thus were formed the three elements of malaria: solar heat, moisture, and decaying vegetable matter, and a frightful epidemic cholera thus raged in New Orleans in the winter months. A knowledge of the laws of malaria, and of the peculiarities of Louisville enabled us to make two predictions on the subject of cholera, both of which were fulfilled to the letter. In 1833, while cholera was ravaging various parts of Kentucky, we predicted, in a letter to Professor Yandell, that Louisville would have no more of the disease than the sporadic cases which were then occurring. There had been no cause for general malaria; hence the sporadic nature of the disease in this city. Again, when the pestilence showed itself in New Orleans, in December last, great alarm was felt in this city, and in a public paper, we risked everything upon the declaration that there was no reason to fear for Louisville; that she could not possibly have the disease through the winter, not only because malaria could not form in the winter, but because the fall had not been productive of malaria to poison the system of persons, so as to exhibit those occasional cases of malarial disease that occur in winter. It requires a close acquaintance with the habitudes of malaria to enable one to speak thus confidently, but such predictions may be safely adventured, when they are based upon a full knowledge of the subject. We repeat, that both these predictions, made against the earnest entreaty of friends, were fully borne out by time, the great arbiter. These facts are referred to in proof of the malarious origin of cholera, and to show how accurately the laws of malaria have been obeyed by cholera.

It may be thought that something should be said of the substantive character of malaria, and men sometimes

argue against its existence, because of the ignorance that exists on this point. But we do not know anything of the substantive character of the contagion of small pox; we know its laws, and its effects, but beyond that we have no knowledge of the subject. And we know the laws of malaria, and its effects, and there our knowledge ends. A variety of attempts have been made to discover the essence of malaria; it is supposed by some to resemble carbonic acid gas; others have thought they detected sulphuretted hydrogen in malarious air; but neither hypothesis is worthy of a moment's consideration. Professor J. K. Mitchell, in one of the works at the head of this article, has propounded and defended the theory of the connection of fungi productions with malarious disease. According to this theory we may look for an ague in a mushroom, and for a pestilence in a crop of cryptogamous plants! The theory is sustained by Professor Mitchell with a great deal of ingenuity, but not with much logical force. He does not state malarial laws accurately; is not correct in his topographical difficulties, nor does he account, nor can he on his fungi theory, for the immunity of persons, in malarious localities, living in the upper stories of buildings. The down of the thistle is easily wafted by the air above the utmost height of dwellings, and fungi should be easily propagated in the same way. These facts are fatal to the theory. The facts that malaria is the product of a certain conjunction of certain properties of heat, moisture, and vegetable matter, and that it produces a great variety of diseases, are not defective in any one point, they are harmonious in all their features, when studied under the lights of Physical Geography and of Meteorology. We shall apply the laws when we come to speak of sanitary measures.

One of the most astonishing features of cholera, when viewed in connection with its malarial origin, is found in

its appearance, in a few places, in winter, and as we have seen no effort made to examine this point fully, we shall bestow some attention upon it. The fact is usually stated in much stronger terms than is warranted by the truth. Some of those gentlemen who have undertaken the grave duties of the historian, and many theorists, have spoken of cholera invasions in such terms as lead the reader to suppose that cholera has raged as fiercely in winter as in summer. But this is far from being true. Cholera is emphatically a summer and autumnal disease, and its winter attacks are only exceptions to a general rule. We shall now attempt to seek an explanation of these phenomena.

When malarial diseases show themselves in winter, they show nothing of that general action that they manifest in summer, as a general rule. Indeed, this is almost universally the case. They are usually the result of the action of malaria formed late in the fall, and it lies latent until some exciting cause develops it. No fact is more firmly established, than that there is frequently a long time between the incubation of malaria, and the manifestation of its power. This was noticed extensively in what was called the Walcheren disease. That was a violent form of pestilence, which carried off large numbers of the British army in a few weeks, and the remains of the regiments were sent to England. The disease continued to attack the men, who went home apparently in good health, eight and nine months after their arrival in England, when no such disease had ever been known in the localities where these cases occurred. And the attacks were confined to those who had been on the Island of Walcheren. Here, then, a poison of great power laid dormant in the system for many months.

Another striking instance of this fact is recorded in the Medico-Chirurgical Review. A British regiment was stationed in India, at a point somewhat notorious for

yellow fever. A frightful attack of yellow fever manifested itself, and committed great ravages. After a considerable portion of the regiment was destroyed, the remnant of the troops was ordered to a remarkably healthy point, occupied by another regiment, where malarial forms of disease were unknown. Cases of yellow fever continued to occur four months after the removal, among the soldiers of the affected regiment, while there was nothing of the kind in the regiment that previously occupied these healthy quarters. This conclusively establishes the fact that the most violent forms of malarial poison may lie in the human system perfectly quiescent for a great length of time. An analogous fact is found in one of the animal poisons—that productive of hydrophobia. From forty days, to twenty-four months elapse, in this disease, between the inception of the poison, and the development of hydrophobia; and this fact shows that there is no absolute relation between the power of a poison, and the celerity of its attack.

It is evident, then, that malaria may be received into the system, lie dormant some months, and then develope itself with great power. These facts are in accordance with the observations of many of the best minds that have adorned medical science. Dr. James Johnson, of the Medico-Chirurgical Review has borne, in his work on "Change of Air," decisive testimony to the truth of these statements, and extended observation, and experience have abundantly confirmed these views.

It is evident that, if malaria forms with great rapidity, under the proper proportions of solar heat, moisture and vegetable matter, a violent pestilence may spring up, and commit its ravages with great rapidity, but long after the violence has passed away, and the epidemic has ceased, cases of the disease continue to occur, for weeks and months, among those who did not yield to the epidemic influence.

This has been universally observed to be the case in all malarial epidemics. It was so at Lexington in 1833, and at New Orleans during last winter. The disease was violent in the latter place for a few weeks, its violence ceased, as we predicted it would, under the influence of cold weather, and it afterwards exhibited the feature we have named —those in whom the cause was latent, continued to fall under its power for weeks afterwards. Here, indeed, is a clear manifestation of the truth we are endeavoring to illustrate. When the weather turned cold in New Orleans, the disease so far abated, that instead of three and four hundred cases a day, there were three and four a day, and the exhibition of cholera disease finally passed off to an occasional case, and these phenomena were occurring in cold weather. While the weather in December and January was hot, the cause was active and violent; as soon as the cold weather destroyed the *unconfined* malaria, the cholera was left to attack those who had imbibed the cause of it while it was active, but in whom it remained quiescent for weeks, and then showed itself in cold weather. The same state of things often displays itself when the malaria forms late in the autumn. The cause is formed and imbibed in hot weather, and displays its effects in cold weather. Thus we have malarial disease in winter. But let it be borne in mind that malarial diseases rarely ever prevail extensively in winter, the attacks are sparse and far apart.

We should do injustice, however, to this part of the subject if we were to omit all reference to the fact that an epidemic from malarial causes may appear in winter. An instance is recorded by Dr. Cooke, which sheds so much light on this subject, that we shall quote its details. Dr. Cooke says, that it is obvious that if individuals may, after imbibing malaria, have it latent in them for sometime, and then have it developed in cold weath-

er, the same thing may happen to the whole community, and he gives the following case in proof. He says:

"In 1748, a man built a dam across the central valley of Bethlehem township, in Connecticut, in order to kill the timber on a piece of ground containing about fifty acres. The ground continued covered until the spring of 1750. The water was then let off, and was followed by a pestilence, which carried off a number of the most robust inhabitants. * * * Ten years after, the same low ground was again overflowed; the water was let off, and another wasting sickness began in the month of November."

In fact, the universal testimony of the best and most accurate medical writers, in various years, and in various climates, to the appearance of malarial diseases through the winter and spring, after an autumn suitable for the production of malaria, and of their being confined in winter to the districts that are malarial in summer and autumn, is so decisive, that if cholera had not shown itself occasionally in cold weather there would have been reason to suspect that it was not malarial.

Let us now turn our attention to a few facts respecting the cholera of winter.

Among the most prominent of these winter cases is the recent development of cholera at Tooting, England. It shows in strong colors, the combined effects of malaria, bad food, and the want of ventilation, and this has a bearing upon the sanitary regulations, which we shall recommend. It also throws light upon a most important point respecting winter malaria. The doctrine on this subject is, that cold weather puts an end to the production of malaria, and, as a general rule, it is true. But it has been too universally applied. It is very certain that malaria, in confined sewers, ditches, etc., may resist the effects of cold weather, as we shall see when

we come to speak of Edinburgh and London. The cholera at TOOTING, in January, 1849, throws much light on this subject, and we proceed to a detail of the facts. A Mr. Drouett, of Tooting, hired from the Poor Law Commissioners of a number of work-houses, a large number of pauper children, for whose board and lodging he received a weekly allowance, and he made a feeble allowance of food to the children. The children were miserably lodged and poorly fed. From the Coroner's inquest we learn, that fifteen hundred children were in the establishment of Mr. Drouett, and they were kept on miserable fare. One gentleman reported to the Commissioners, that he saw one hundred potatos cut up for the children. Not one of these potatos was fit to eat—they were black with disease. No salt was allowed in the food of the children, and they got no bread. Almost their sole diet was liquids. The results are matters of interest to medical men. Upon comparing twenty-five Welsh school children with twenty-five of these eleemosynary boarders at Tooting, the following results were found. The aggregate age of the Welsh children was 259 years, and of those at Tooting 255 years. The weight of the Welsh children was 1516 lbs. 12 oz., of those of Tooting, 1339 lbs. 8 oz., showing a difference in favor of the Welsh boys of 177 lbs. 4 ounces. The measurement across the thick part of the arms showed, in the Welsh boys, 179½ inches; in the others, 161¾ inches. The measurement of the abdomen, however, makes the most important revelations. The boys of Tooting measured, in the aggregate, 595 inches around the abdomen, while the Welsh children measured only 567½ inches; all the facts thus show, that fluid diet tutumifies the abdomen, and causes the limbs to waste away.

The lodging wards measured 196,785 cubic feet, from which, if the space occupied by the beds and children be

deducted, it leaves 186,870 feet of respirable air, being only 136 feet to each child, or as much as might be contained in a box five feet two inches square. In an unventilated room this would be disastrous to health. The total number of children allotted to the beds was 1301. Instead of each child having at the rate of 266 cubic feet of air, they had within a fraction of 144 only. This, without a current through the rooms, would last only eight hours, as each expiration of breath contains four per cent. of carbonic acid gas, while ten per cent. is sufficient to destroy life.

Here then we have miserable food, and miserably small and ill-ventilated lodgings, the favorite concomitants of cholera, for these children at Tooting. Let us now trace the malaria to its sources.

The Coroner's inquest, on this calamity at Tooting was conducted by Mr. Wakley, the editor of the London Lancet. Upon examining the premises, it was found that the dormitories of the elder girls were in two old family mansions, facing the main road in the village of Lower Tooting, and a portion of these mansions was occupied by Mr. Drouett and his officers. The boys were lodged in a number of detached outbuildings, extending on the right or *north eastern* side of the play-grounds, their entire length. Beyond these, on the same side are a number of cottages, used as dormitories for the elder boys, and these cottages stand over a stagnant ditch, which passes along the end of the grounds, and these lodgings were the most unhealthy of the buildings. In some detached buildings in the same yard, were the dormitories for the younger children. These dormitories were immediately over the lower rooms, which were 10½ feet in height. The drains and ditches in the vicinity of Drouett's establishment were carefully examined by the Inspectors, and the medical men present. It was found that at the end of the grounds, the cottage sleeping

apartments were built over a ditch, which formerly ran from Tooting to Wandsworth, but which has been turned, and now passes in a north eastern direction towards the Surrey Lunatic Asylum. After passing along the end of the Asylum grounds, for a short space, the ditch becomes wider, and returns again towards Tooting.—*This ditch had been cleaned out six weeks previously by a number of the larger boys of Mr. Drouett's establishment, and the filth had been deposited on the bank,* to be used as manure for the adjoining land.

In a field adjoining Drouett's place, on the farm of a Mr. Rawlings, was found a stagnant and filthy ditch of extraordinary dimensions. This ditch is situated in a *north eastern* direction from Drouett's, and is connected with an immense tank, in which all the refuse of the Lunatic Asylum is thrown. This ditch is three feet deep, from eighteen to twenty feet wide, and was nearly full of stagnant filth when examined, and emitted a most offensive odor. The ditch had been dammed up to collect and retain the filth, to be used as manure for the farm of Mr. Rawlings.

Here, then, were abundant sources of malaria, and it was in a position to be held for winter use. It was imprisoned in these ditches, but it did not *begin* its influences in January. It exhibited them, then, for the first time, but we have already given conclusive proof that a long time may elapse between the incubation and the development of the disease. Before the Coroner's inquest, a number of highly respectable physicians pronounced the disease to be cholera. Mr. Grainger, whose fame is well known in this country, said that the cases were worse than those at Glasgow, where he had been spending sometime, under the orders of the government. The worst features, of what is called Asiatic cholera, were present in these cases at Tooting, but the patients were remarkably exempt from cramps, an absence that

has been often noticed. Among the witnesses on this occasion was a Mr. Robinson, surgeon of the St. Pancras work-house. He was very lucid and precise in his testimony. He declared that though the nature of the food given to the children, and the scantiness of their clothing were the predisposing causes of the epidemic, undoubtedly the main cause of the outbreak was malaria, blown, by the *north easterly* winds, from the ditches to the buildings.

We have entered into the details of this outbreak at Tooting, on account of their deeply interesting character. It is a recent case, and was rigidly scrutinized by Mr. Wakley, and the medical gentlemen whose services were called in requisition on account of the severity of the visitation. In the course of a few days 229 of the children were attacked with cholera, and, up to the 8th of January, 52 of them died, and the attacks and mortality continued up to the 15th of January, the date of the last London Herald we have received. We have condensed from two numbers of that paper, the details we have given. These details are of the profoundest interest to the medical man. They show most impressively the evils and disasters attendant upon bad food, improper clothing, ill-ventilated lodging rooms, and malaria. The poor, in all parts of the earth, have been the special victims to cholera, and their want of good food and good dwellings undoubtedly has much to do with marking them out particularly for the ravages of the disease. They need the counsel and sustaining care of the intelligent physician, and never does he exercise his profession for a holier or loftier purpose than in preventing the calamities of disease from assailing the hovels of those who are wretched enough even in health.

Let us, however, trace these wintry cases of cholera farther. In February, 1832, cholera showed itself in Glasgow, in Scotland. We take its incidents from a

publication made by a gentleman, who was not only a contagionist, but an ultra one of that school. Our readers will remember that we said, that malarial diseases make no great outbreak, as a general rule, in winter, but occur in scattered cases, and are spread over a considerable space of time, when compared to a summer visitation. Thus, when cholera visited New Orleans in the summer of 1835, several thousand persons were attacked in the space of a few weeks, but in its wintry visitation at Glasgow, in 1832, there were only 140 cases in six weeks; from this time it declined to the sixteenth week, in which only five cases were reported. "*A large proportion of the cases occurred in lanes, closes, and houses remarkable for domestic and public filth;*" we are quoting from an ultra-contagionist now. "The persons attacked in these localities were, for the most part, ill-fed, badly clothed, of dissipated habits, residing in densely crowded, imperfectly ventilated dwellings."

We now turn to Edinburgh in 1832, and the history of cholera in that city strikingly illustrates what we have said of its wintry character. A good deal of malarial disease had shown itself in the autumn of 1831. Diarrhea and typhus fever were prevalent. On the 27th of January the first cases of cholera appeared. Three persons were seized on that day, and three more on the 28th. From this time to the 6th of February, no other cases occurred; up to the 15th, but six other cases occurred; on the 16th and 17th of February, seven; and between this and the 22d, but a single case appeared. In March the disease ceased. And this is often called "the prevalence of cholera in Edinburgh, in winter!" Why, we have had more than this number of violent cases of fever and ague this winter, in our own practice, among persons who were not the subjects of the disease the preceding autumn. In the depth of winter some of these

cases occurred, of a most malignant type, one of which was invariably ushered in with violent convulsions. Of their malarious origin scarcely any physician can have a doubt.

Dr. Stark, of Edinburg, has published a very graphic picture of the disease in Edinburgh, in the winter of 1832; and he states that there was not a case of cholera that occurred out of the usual track of fever. It was entirely confined even in the winter, not only to the malarious districts, but to the old and familiar malarial localities. If the disease did not depend upon malaria, why did it attack no one but those under the influence of that agent of disease? And a host of testimony to the same point, bears witness to this truth in every spot of the earth, where cholera has made any exhibition of itself in winter. Dr. Stark's minute details of the drainage, sewerage, filth, etc., of the localities in Edinburgh, where the cholera made its assaults are very interesting and satisfactory, but we cannot detail them.

There are forms of malarial disease that show themselves in winter, as, indeed, they all do except those depending on exceedingly high temperature. The French Academy have established the malarious origin of Plague beyond disputation, yet it exhibits sometimes the wintry peculiarities of cholera. In 1834, in Egypt, the deaths by plague, in December were 109; in January, 1835, 151; February, 821; March, 4,329; April, 1,897; May, 321; June, 21 cases. In June the land is usually overflowed, and the water stops malaria and plague. We find repeated notices, in cholera reports, of the prevalence of diarrhea, dysentery, and other forms of malarial disease, in connection with cholera, both of summer and winter. Some malarial fevers are ushered in with diarrhea. Thus, Dr. Paxton, of Rugby, gives a history of a fever of this kind, in which, he says, the fever was rarely developed, if the diarrhea was judiciously treated. In an epidemic

fever at Liverpool, England, in 1844, diarrhea was generally present. Cholera morbus, dysentery, diarrhea, and fever and ague are the forms of malarial disease that most frequently attack in winter. Cleghorn gives numerous tables of these facts, and universal experience corroborates them. The same testimony was often given in the *Medical Recorder*, published many years ago in this country.

It is evident, therefore, from all these facts, that the occasional attacks of cholera in winter constitute no reason for doubting the malarial origin of that disease. When properly understood, these developments of cholera in winter are excellent reasons for considering it a malarial disease; and a strong corroborative proof is found in the universal experience that cold weather checks all tendency to an epidemic prevalence of cholera. Its attacks are then scattered over a broad surface, and are far apart, just as we see fever and ague in cold weather.

A brief statement of the facts noticed on this subject, by medical men in various parts of the world must close this department of the subject. In Moscow, the disease prevailed and was most fatal, in a flat, malarious quarter, surrounded by a bend of the river Moskwa. At Breslau, cholera first attacked, and principally ravaged, that part of the town which is low and marshy, and which is the constant seat of intermittent fever. Dr. Antomachi says, that the condition of the houses in which cholera prevailed in Warsaw, was little better than that of sewers. In Paris, "the disease first appeared, and subsequently spread, above all other places, in the *quartiers* situated on the borders of the Seine; it was most prevalent and fatal in the low, close, undrained, and uncleansed localities."

Dr. Guy says, in his "Report on Public Health," from which we quote a portion of the above facts, that "in

England cholera, generally, first appeared in the neighborhood of marshes or rivers, and principally raged in low, damp localities, particularly where these were also the outlets of filth. In Carlisle, for example, it is stated that it first broke out near a mill, and raged down the dam-side; few cases occurring in any other part of the town." In Manchester the malarious localities exclusively suffered; we mean those parts near the *outlets* of drains, and in the immediate neighborhood of sewers. Open or obstructed sewers are fruitful sources of malaria, and these were the home of the cholera. The following singular fact was noticed at Liverpool, England:

"One morning it was discovered that several men had been seized with cholera, during the preceding night, on board a vessel lying in one of the docks. The men were sent to the hospital, and the vessel having been warped into the river, another ship with a healthy crew took up her station. The next morning all the hands on board were ill of cholera. On examining the dock, it was found that a large sewer discharged its contents under the spot where the vessel was placed."

The cholera cut off nearly half the inhabitants of Inver, a town situated on the low sandy shore of the Tain Frith, *and notorious for its malaria*, while the town of Tain and most of the rural districts escaped.

"All accounts from India agree in stating that cholera first breaks out and principally prevails in low and marshy situations, and particularly near the banks of rivers; that whenever a village or military station lies upon or near low, marshy, or damp ground, the occupants suffer in direct proportion to their proximity to such a situation; and that when a regiment has been encamped, one part on high and dry land and the other part on a morass, or on the bank of a river, it is constantly observed that the former has remained healthy, while the latter has suffered severely from the disease."

We have noticed many striking illustrations of these

facts in military reports from India, Persia, and Russia. Dr. Guy says, very truly, "that in these respects cholera bears a close analogy to fever," and all readers of military medicine must be struck with this truth.

In London the cholera was confined to the old and familiar seats of malaria. The whole of the coast extending from St. Katharine's docks to Wapping, was frightfully ravaged by it. "It was the practice in that region to pump out the cellars to rid them of water which had got up into the houses by infiltration from the river, or more frequently flowing in through the house drains from the sewers when the tide forced back the water into the houses. The stench from the water pumped out of the cellars was often intolerable; so much so that I was accustomed to go out of the way to avoid it. Cess-pools were general, the contents of which percolated through the substratum, and the river water percolating through the substratum carried with it the matter from the cess-pools." This witness adds, as his opinion, "that cholera took the place of typhus, affecting the same class of persons, and being influenced by the same circumstances."

Of Southwark, Mr. Leadam says: "This was certainly one of the districts the most severely visited by cholera. The disease prevailed chiefly in the filthy dens which we have about us, in the close courts and alleys. The cholera and typhus track were identical." Mr. Wagstaffe, after describing the condition of Lambeth, says: "these localities, in which typhus is constantly present, are the very localities in which cholera chiefly raged. I have at the present moment many cases of fever in the very places in which cholera was most prevalent. This autumn, diarrhea and dysentery have also been prevalent there, and some cases were so similar to Asiatic cholera that I have asked some of my professional brethren to go and see them; two of these cases were fatal.

They had, in fact, all the characteristic symptoms—vomiting, diarrhea, with rice colored evacuations, cramps, suppression of urine, the particular sunken countenance, giving the expression of age to the patient, with a livid or even blue color."

"In the parish of Christ Church," says Mr. Doubleday, "and in the neighborhood of Broadwall, there are *open sewers.* At Brunswick Place there is an open one. In these neighborhoods the cholera was unusually severe; in one row of houses, within two yards of the sewer, houses which are very miserable as regards size, ventilation, and means of cleanliness, the mortality was excessive; as many as five died in one house."

And thus might we go on over the whole earth, and we should find in all cases of cholera traces of present malaria, or of its recent existence. We have traced its habitations and habitudes, and have been particular in details, in order to make the sanitary regulations we wish to urge, the more impressive from being founded on reason and knowledge. We feel the most perfect confidence in the fact that all measures that tend to prevent the formation of malaria will completely prevent the production of cholera, and all other malarial diseases.

The wide sweep of cholera over the earth has been attended with a great many advantages to humanity. Never in the world's history has the attention of men been so effectually and efficiently aroused as by the epidemic influences of cholera, and universal inquiry has resulted in the development of much precious truth, and of lasting benefit to mankind. Old opinions have been modified; new principles brought to light; and permanent good has been done by the enlightened action of medical men in their investigations of the condition of the cholera localities of Europe. The Reports of the Commissioners of Public Health, upon the condition of towns in

England, which have been made from year to year since cholera invaded that kingdom, contain a body of facts that must be of the highest importance to the public welfare. They show in the most impressive manner the direful effects of improper drainage, sewerage, etc., and the grave evils of bad ventilation. Defective drainage, and sewerage, coupled with want of ventilation, exhibit winter effects of malaria. Dr. Stark, of Edinburgh, points out these effects with great clearness, and his facts should be known to the public authorities of all large and growing towns. The wise and long-continued investigations of the medical men of England, into the condition of the various towns of the kingdom, and the history of disease in them, very fully corroborate the views and facts of Dr. Stark. They establish one material point very clearly, and that is that malaria may be so cooped up as to defy the sanative effects of cold weather. We referred to this valuable fact in our remarks upon malaria in the holds of ships, while winter had possession of the decks. Large, filthy sewers are to a neighborhood what the hold of a vessel is to the people on deck. Malaria cannot easily be formed in winter, upon an open marsh, but may in the hold of a ship, and in badly constructed sewers. Until the public mind was drawn to these things, few persons imagined how extensively disease prevails in England, and how constantly it is connected with malaria. But in these "Public Reports" to which we have referred, we often meet with such facts as these: "The fever is almost, if not altogether, identical with a fever not long ago extensively prevalent in the large towns of Scotland, from whence it probably passed into England." "It appears, from the statement of a trustworthy correspondent, that the disease first appeared at Hunemanby in August last, and prevailed more especially amongst the population resident in badly constructed tenements, built upon soft

ground badly drained, with neglected privies and drains behind. * * * At Reighton, a small village three miles from Hunemanby, there have been thirty cases. Here there is a nasty marsh, with a dirty, foul pond close by, fed from some farm-yards above with a quantity of offensive fluid. All the thirty cases of fever occurred in close vicinity to this pond or marsh, while the upper portion of the village has been totally exempt from the epidemic." There are few towns in England altogether exempt from malaria.

Here is an important fact that should arouse the attention of western farmers, for the farmers of Kentucky are negligent upon these points. Dr. Laycock says: "I believe that few farmers are aware that the plan adopted by many, of leaving their straw, mixed with the dung of their cattle, to rot and become manure in a yard close to their premises, is the surest method they could devise of predisposing themselves and their servants to suffer severely from such an epidemic as the one in question. Where you have a quantity of straw rotting you must necessarily have an evolution of noxious gases. Now in a farm-yard where straw and dung are decaying together, you have an ample source of miasm, even if situated in a high and dry situation; and if the drainage from such yards is allowed to run along in an open channel, or into open ditches near the dwellings, you have the sources of miasm still more widely extended."

The immense value of perfect drainage and cleanliness cannot be too constantly enforced upon the attention of men. These are the sources of health; a neglect of them is the certain precursor of sickness and misery. Nature has provided the humblest insect tribes, and all animals inferior to man, with means of cleanliness, that are most perfect in their adaptation to the end in view. A survey of these truths gives an impressive lesson upon the necessity and value of cleanliness, and man can-

not neglect this great law of the animal economy without paying the penalty. We cannot dwell upon the facts in Natural History, to which we allude, but in a future article on sanitary measures, we shall endeavor to present our readers a number of very curious facts on this interesting subject.

T. S. B.

Art. V. — *An Illustrated System of Human Anatomy, Special, General, and Microscopic.* By Samuel George Morton, M. D., Penn. and Edinb., Member of the Medical Societies of Philadelphia, New York, Boston, Edinburgh, and Stockholm; author of 'Crania Americana,' 'Crania Egyptica,' etc. With three hundred and ninety-one engravings on wood. *"Oculis subjecta fidelibus."* Philadelphia: Grigg, Elliot & Co. 1849. pp. 642. Royal 8vo.

We like to see new works on Anatomy. Each new one adds another to the means of study. They are not all equally good, some having one excellence and some another, but all contain something valuable, and we could wish them to be as common as spelling-books, or office-seekers, or heroes in the Mexican war.

All concede the necessity of a knowledge of anatomy and physiology to the medical man, but all do not agree as to the amount deemed necessary. While some are satisfied with a very superficial knowledge, others demand that it shall be profound, intimate, minute. We count ourselves among the latter. We think that the professional man cannot know too much of these matters, since they are not merely the ground-work of all his subsequent studies, but they cement, bind, and harmonize all his acquisitions in other departments. To be sure there are those who have the reputation of being pretty good doctors, and who think themselves pretty

good doctors, who can scarcely tell the difference between a muscle and a mucous membrane, or between the basilar artery and the basilic vein. They have some general notions, such as that the liver is below the diaphragm and secretes bile, whence comes 'biliousness;' that the stomach is somewhere near the end of the breastbone, and furnishes what is called gastric juice, of great use in digestion; that the heart is situated somewhere in the chest, and sends blood throughout the body, the said blood being occasionally "full of humors." But of any knowledge of the structure of the liver, of the situation of the cardia and pylorus, of the uses of the mitral and semilunar valves, they are as innocent as is a babe unborn. They are practical men, forsooth; they have in their minds a close association between calomel and salivation, castor oil and cathartics, Dover's powder and diaphoretics, ipecac. and emetics. The "disgusting" details of anatomy, the abstruse mysteries of physiology, are not for them; they leave these to the plodding theoretical fellows, who have nothing else to do. But they place great value on anatomical plates, and dry preparations of the muscles, nerves, and bloodvessels, and are delighted when "lectures on a mannikin" are advertised by some itinerant quack whose ignorance is equalled by only two things in the world, viz: his impudence and the credulity of the public.

The picture is not overcharged, and the originals are too often to be seen. But such are rapidly passing away and giving place to a better class.

At least we hope so. That which lies, it seems to us, at the bottom of all medical reform in this country is a longer, closer, and more thorough study of anatomy and physiology. Beautiful as each of them is, and attractive beyond almost anything else in the whole circle of human knowledge, students of medicine, with that fatal impatience said to be characteristic of American youth,

too often hurry over them as things which are of no importance and which serve no purpose save that of impeding their progress. It is difficult to imagine how a man can do so, who keeps in view the object of his studies, to cure the ills that the body is heir to. It is no less difficult to imagine how one can look on the human body and not feel an irresistible impulse to spend his life in the study of its wonderful structure and in the development of its laws. And it seems to us that he who has not this feeling should not think of fitting himself for the duties of the physician. We would make this a test, and say to him who has no love for anatomy, who does not feel an enthusiasm for it, who does not experience in it an ever new delight, to go his ways, delve the earth, seek for gold in California, pick up rags in the street, break stones on a highway, but never think of studying medicine.

Therefore it is that we hail every new work on anatomy, and welcome every new author in the field. We care not to what extent the means of study are multiplied. Each new book shows that there is one man more who acknowledges the obligations that all ought to feel—to endeavor not to leave science where he found it, but to advance it, to enlarge its boundaries, to add to its possessions. Such should be the spirit of every member of the profession, and he who enters it with other views enters where he has no business, and deserves little fellowship.

Some such feeling as this Dr. Morton confesses to have been one of the incentives to the present publication—"the wish to be enrolled among the expositors of a science which has occupied some of the best years of his life."

The work in all its externals is one of the most elegant that has ever issued from the American press, and gives a very favorable impression of the state of the

arts of printing and engraving in this country. It contains a good outline of anatomy in its present state, beginning with a brief but clear exposition of the cell-doctrine. The latter is almost entirely neglected in the common elementary works, much to the annoyance and perplexity of the student. Although we are not prepared to assent to everything introduced by the cultivators of microscopic anatomy, yet as its language has invaded every department of the profession, even that of practical medicine, it is absolutely necessary that the student should early form an acquaintance with it. Dr. Morton mingles a little physiology to relieve the mere anatomical details, connecting thus the structure with the more important functions. The physiological particulars do not amount to more than hints, which the reader is to follow up elsewhere; to have made them more would have swelled the book to an inordinate size. The anatomical descriptions are concise and clear, and, aided by the numerous illustrations, make it an excellent text-book.

Notwithstanding its general excellence, the volume bears some marks of haste or of negligence which we do not like to see. Four pages are intercalated, from page 104 to page 105; the description of the patella is not in its proper place; and the hyoid bone comes in at the end of the volume like an afterthought. There is likewise a looseness of expression reprehensible anywhere, but especially in a book intended for learners whose descriptive style and phraseology may be formed after it. Thus we find such expressions as "tarsus cartilage"—"tonsil gland"—which are about as elegant as would be *femur bone*, *aorta artery*, and the like. Then the phrase, "subjected to the action of the microscope," seems to be quite a favorite with Dr. Morton, but it is certainly a very vile phrase. Want of taste, too, is shown in the mingling of Latin and English words in speaking of dif-

ferent structures. We hold to the canon that anatomical language should be all English or all Latin, and that such expressions as "female *genitalia*" are out of the question. Want of careful revision is shown in various places: take the following from page 599:

"Viewed from within, the cornea is exactly circular; but seen from the outside, its transverse diameter is observed to be a little less than the vertical, owing to the sclerotica overlapping it much more above and below than at the sides."

Or this from one of the notes, page 607:

"We may observe, that Drs. Todd and Bowman separate the retina into three laminæ independently of the tunica Jacobi; viz: a granulated layer externally, a vesicular gray layer in the center, and a fibrous gray layer externally."

These are matters observed in a somewhat hasty examination, and we are not disposed to multiply the instances, or to dwell on them. In a second edition, which we trust will soon be called for, these blemishes will no doubt be removed.

The book is for sale by Peters & Webb, Main street.

C.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Synopsis of the Methods of Treating Asiatic Cholera. DR. GRAVES: No faith in mercury. A scruple of acetate of lead with one grain of opium, divided into twelve pills; one to be given every half hour till the discharges diminish.—*Clinical Lectures*, 2d Ed. vol. i, p. 419.

2. DR. WOOD, Philadelphia: Calomel and opium, in small, repeated doses; acetate of lead, kino; cold water to drink; external warmth; diffusible stimulants.—*Treatise on the Practice of Medicine*, vol. i.

3. DR. PARKES: First stage, bloodletting sometimes; acetate of lead, two to three grains, with a quarter grain of opium, every half hour for two or three hours; external warmth useless; large doses of calomel injurious; mustard poultices to epigastrium; cold drinks; diffusible stimuli. In *collapse*, bloodletting sometimes relieves.—No treatment to be relied upon.—*Researches on Algide Cholera.*

4. DR. MILROY: External warmth; saline emetics, as salt, one tablespoonful in a tumbler of water; turpentine stupe; salt or turpentine enemata; calomel when the vomiting has abated.—*Pamphlet on Quarantine*, 1847.

5. MR. BELL: Bloodletting, if seen in three or four hours from invasion; quinæ disulph. grs. xij; ferri sulph. grs. ix; aquæ Oiss. Dose not stated.—*Medical Gaz.* Jan. 1848.

6. Dr. Black: Small bleeding in stout subjects; calomel and croton oil repeated three times; then calomel with capsicum; enemata of warm water.—*Prov. Med. and Surg. Jour.*, Jan. 26, 1848.

7. Dr. King: Cold water *ad libitum;* large doses of calomel.

8. Dr. Turnbull: Capsicum embrocations.—*Lancet*, Jan. 29, 1848.

9. Dr. Arthur Wilson: Warm mustard emetic; venesection where possible; neutral non-aperient alkaline salts; inhalation of oxygen.—*Lancet*, Nov. 4, 1848.

10. Dr. Ayres: Two grs. of calomel and two drops of laudanum every ten minutes, as long as collapse lasts.—*Lancet*, Oct. 7, 1848.

11. Dr. Henriques: Quinine in large doses, in all stages; stimulant embroctions; injections of decoction of bark.

12. Mr. Allen: Large doses of calomel at the commencent; bleeding occasionally; mustard poultices to the spine and abdomen; enemata of hot salt and water.—*Lancet*, Oct. 21, 1848.

13. Dr. M'Cann: Mustard emetic; brandy and laudanum, and calomel and opium; stimulant embrocotions.—*Lancet*, Oct. 21.

14. Mr. Hird: Mustard emetics, followed by acetate of lead and opium; stimulating apothems.—*Lancet*, October 21.

15. Mr. Jenkins: Strychnia, gr. j; conserve of roses sufficient to form eighteen pills; one every quarter of an hour.

16. Mr. Beaman: Salt emetics; external warmth; then carbonate of soda in effervescence with lemon juice.—*Lancet*, Sept. 2.

17. Mr. Hancorn: Emetics; diffusible stimulants, as ammonia, capsicum; hyd. c. creta; tinct. ferri sesquichloridi in concentrated form after every motion; sulphuric acid embrocations; hot-air bath.—*Lancet*, Sept. 9, 1848.

18. Dr. Radcliffe Hall: Five grs. of tartar emetic

in half a pint of camphor mixture; an ounce every two hours, till tolerance is effected.

19. Mr. Brady: In premonitory stage, ol. ricin. ℥iij; chloroform, *m*vj; tinct. opii, *m*xx; aquæ menthæ, ℥iss; f. haust. If reaction ensues, external warmth, sinapisms, and the following draught and pill, repeated according to circumstances:

℞. Chloroformi, *m*viij;
Sp. vin. gall., ℥iij.
Aquæ, ℥ij. f. Haust.

℞. Fellis bovini, grs. iv;
Hyd. chlor., grs. iij. f. Pil.

Chloroform embrocations to the spine.—*Medical Times*, Oct. 14.

20. Dr. Shearman: Bloodletting, followed by transfusion of blood; respiration of oxygen and atmospheric air; tartar emetic treatment.—*Medical Gazette*, October 14, 1848.

21. Dr. Patterson, Rathkeale: Five grains of calomel, with thirty drops of laudanum, every four hours; then an enema, consisting of sulphate of copper, sulphate of zinc, and alum, a scruple of each, to one ounce of cold water; a wineglassful thrown up every few minutes till retained; after retention for half an hour, a large warm water injection.—*Dublin Med. Press*, Sept. 20.

22. Dr. Cowan: Thinks well of bleeding in robust persons; stimulating emetics; calomel and opium; effervescing salines *ad libitum;* external warmth.—*Prov. Med. and Surg. Jour.*, Nov. 1, 1848.

23. Sir James Murray: A wineglassful of his fluid of camphor every ten minutes, with a few drops of laudanum, inflating the lungs with electrified air; galvanic discharges through the respiratory and spinal nerves.—*Lancet*, Nov. 4, 1848.

24. Mr. Marsden: Calomel and ginger, with powders of common salt, ℥ij, carbonate of soda, ℈j, oxymuriate of potassa, grs. vij, every quarter of an hour till reaction ensues; hot salt baths; warm saline emetics.—*Lancet* Nov. 4, 1848.

25. Dr. Willemin and M. Moreau: Cannabine, the active principle of Indian hemp. The preparation a tincture of the strength of one grain to ten drops of alcohol; dose, ten to fifteen drops.—*Lancet*, November 4, 1848.

26. Dr. Hill: Place the patient in a warm bed; give internal stimulants; friction with warm flannels; external heat; chloroform inhalations repeated at intervals.—*Lancet*, Nov. 4, 1848.—*Ranking's Abstract.*

Chloroform in various diseases. In Convulsions.—Professor Jackson referred to the history of a case remarkable for the quantity of chloroform that was used. A lady laboring under a stricture of the upper portion of the rectum which prevented the flatus from passing, became, in consequence, the subject of an enormous distension of the abdomen, attended with so great a degree of sensitiveness that the use of palpitation and percussion were entirely precluded, and her case was at first involved in no little obscurity.

In the latter part of the month of December, 1845, she was attacked by a violent convulsive paroxysm, preceded by a very peculiar spasmodic affection, consisting in a cracking of the head of the humerus in the glenoid cavity and of the femur in the acetabulum; these spasmodic symptoms continued for about fifteen minutes, when general convulsions set in, accompanied with intense pain. On the 1st of January, 1846, an attack of spasms occurred and continued for several hours; the urine was retained from a spasmodic affection of the neck of the bladder and urethra, the orifice of which latter was so much retracted that it was difficult to introduce a catheter to relieve the distension of the bladder. A few drops of chloroform were given to the patient to inhale, and prompt relief was experienced. The use of the chloroform was continued daily for two or three weeks, the quantity being gradually increased as the effects diminished. Dr. J. was sent for one morning, and found the mother of the lady in great alarm in consequence of the quantity of chloroform which her daught-

er had taken. She had inhaled two ounces in the course of the evening, then two ounces more, and an additional ounce in the course of the night; being five ounces inhaled from 5 o'clock, P.M., until 10 o'clock of the ensuing morning. Dr. J. found her with feeble pulse, diminished temperature of the body, and considerable excitement of mind. She insisted upon having more of the ether to inhale. She remained cold and nearly pulseless for forty-eight hours; when all the effects of the inhalation disappeared, and, what is remarkable, since that time she has had no return of her spasms. Upon one occasion having a tooth taken out, the pain of the operation caused a tendency to their return, but this went off without the spasms occurring.

In Trismus Nascentium.—Dr. BOND related a case of trismus nascentium which occurred in the infant of a female who had been delivered after an easy labor without any medical attendant. When Dr. B. was called to the infant, it was a week old, and exhibited the symptoms of trismus well-marked. He administered a mixture of chloroform and assafetida internally, and the child recovered. How far this result was to be attributed to the chloroform, Dr. B. is not prepared to say, inasmuch as other remedies were employed at the same time. The bowels of the infant were much disordered and soon as they were restored by an appropriate treatment to a healthy condition, the trismus began to disappear.

In Neuralgia.—Dr. HAYS stated, that he had employed chloroform to produce local anæsthesia with apparently the most happy effects, in a case of neuralgia, occurring in a gentleman 50 years of age, who had been for a long time a sufferer from neuralgia of the foot, in which all the remedies that had been previously employed failed to produce relief. Dr. H. was called to this patient about eighteen days since, and found him in intense pain, which had deprived him of sleep the whole of the preceding night. Dr. H. directed the affected parts to be enveloped with a pledgit of lint or a few folds of muslin wet with chloroform, and the whole to be covered with a portion of oiled silk to prevent evaporation;

on the next morning he found him entirely free from pain, which has not since returned. Whether the relief experienced in this case is to be ascribed to the local anæsthesia produced by the chloroform, or is to be considered as a mere coincidence, Dr. H. does not pretend to decide.

In Labor.—Dr. PARRISH stated, that a case of labor in which chloroform was used, had been communicated to him by his brother, Dr. Joseph Parrish, of Burlington, N. J. He was called a few days since to attend a case of protracted labor from rigidity of the os uteri, attended with severe ineffectual pains; he employed a mixture of ether and chloroform; almost immediately the parts became relaxed, and the labor proceeded with increased activity. The child was soon born, and without any consciousness on the part of the mother.

Dr. GRISCOM remarked, that he had employed ether inhalation, as remarked in the report read by him this evening, in two cases of labor. The first was a protracted, instrumental, case; the female had been in labor twenty-four hours. There was great rigidity of the parts and dryness of the vagina. The patient was very intolerant of pain. As soon as she commenced inhaling the ether she pronounced herself as in heaven. There quickly took place a copious secretion of the vaginal mucus, and the child was soon delivered. The other case was one of natural labor, but attended with severe pains. The ether was administered at the patient's desire. She did not inhale a sufficient quantity to produce unconsciousness, but acknowledged very decided relief from its use.

In Nephritic Colic.—Dr. STILLE stated, that last spring Dr. Bowditch, of Boston, related to him a case of nephritic cholic, occurring in an individual who had previously suffered from several attacks, in which the chloroform had been administered with the effect of inducing entire relief of the pain, without abolishing consciousness. The influence of the chloroform was kept up for several hours, when, at length, the stone passed through the ureter. Within the last three weeks a lady, about

20 years of age, after retiring to bed some hours, was attacked with violent pain in the region of the right kidney. About an hour afterwards (1 o'clock, A.M.,) Dr. Stillé was sent for. The mother had applied warm fomentations to the loins, and immersed the feet in a mustard bath. There was still intense pain, with tenderness over the region of the right kidney. The patient was lying bent double, her hands and feet were cold, her pulse feeble, and about sixty in the minute. The pain extended in the direction of the ureter; there was pain and a twitching motion of the right thigh, with frequent inclinations to urinate. From a review of the symptoms, Dr. S. considered the case to be one of nephritic cholic. The use of ether was suggested. A teaspoonful was poured upon a handkerchief and inhaled for five minutes, when the patient fell asleep. In about fifteen minutes she was aroused by a return of the pain. The ether was again inhaled, and its impression was kept up for about an hour, without carrying it so far as to abolish consciousness; the pain ceased, the extremities became warm, and the pulse rose to seventy-five. The next morning there was no pain complained of, but considerable soreness was experienced when pressure was made over the right kidney. The pain did not return until two nights afterwards, when a larger dose of ether was used, by the patient, without Dr. Stillé's presence or direction, but from some cause, it did not produce the same alleviation of the pain as before. At 4 o'clock in the morning Dr. S. saw her. The pain had by this time somewhat abated, and upon the administration of an opiate enema complete relief was procured. The pain has not since returned. No calculus was passed, so far at least, as could be ascertained.—*Summary Trans. Coll. Phys. Phila.*, Jan. 1849.

On the Utility of Trisnitrate of Bismuth in the Diarrhea accompanying Phthisis. By T. THOMPSON, M.D., F.R.S., etc.—The author considers the trisnitrate of bismuth to surpass in efficacy and safety our most approved remedies for this complaint. He has taken every opportunity, during the last twelve months, of testing its

powers, and has preserved notes of twenty-one of the cases in which it was administered. Of these, eighteen were phthisis in various stages of progress, and three bronchitis. In fifteen of the patients the diarrhea was entirely removed; in four transient benefit was experienced, and the remedy proved useless only in two instances. The dose administered was about five grains daily, usually combined with a little magnesia and gum arabic. Dr. Thompson has referred to various authors who have written respecting the properties of bismuth, without being able to collect from them any evidence of its powers in the phthisical variety of diarrhea, but he entertains a strong conviction of its peculiar appropriateness to this affection, and has obtained important confirmation of his experience in a recent communication from Dr. Lombard of Geneva.—*Dublin Med. Press.*—*N. Y. Jour. Med. and Col. Sci.*

Quinine as a Prophylactic in Puerperal Fever.—M. LEUDET cites several cases which occurred during the prevalence of three different epidemics at Rouen, in which quinine, given in doses of five grains three times a day, and commenced with a few hours after delivery, seemed to exert a protective agency. On the third day, this quantity was diminished, and the drug left off about the sixth day. In those epidemics in which the disease commences very speedily after delivery, the quinine should be administered as soon as labor begins.—*L'Union Médicale.—Ibid.*

Sulphate of Quinine in Fever.—I repeat, if you give quinine when the pulse is at one hundred and thirty beats to the minute, and falling, (premising of course the necessary depletions,) and give it in sufficient quantity, say five grains, with a little ipecac. every hour, that you will, in a very large majority of cases, find that the pulse will fall rapidly under its influence, until by the time the fifth portion is exhibited, your patient is altogether free from fever. Whereas, if you give it when the pulse is at eighty

beats to the minute, and rising, you will invariably increase the action of the heart in force and frequency, and if pushed to any considerable extent, cause the death of your patient. It is also well worthy of remembrance, that quinine given at an improper time, is not only calculated to excite fever, and do an immense amount of injury in that way, but oft repeated observations have confirmed me in the opinion, long since entertained, that it materially lessens the capability of that article to impress the system favorably afterwards; i. e. after you have succeeded in effecting a remission or intermission of the fever; thus depriving us of the use, to a certain extent, of the most valuable agent known to medicine in combatting this dangerous malady.

I will now attempt to give you some idea of our treatment of the so-called congestive fevers of our country, in the cold stage. The after treatment, you will be able to learn much better than I can teach, in the schools, from the books and by your own observation. Indeed, most of the writers describe this part of the treatment with sufficient accuracy, but I think they fail to point out with clearness, the *extent* necessaray to carry the means that are to be used, and it is to this that I would call your particular attention. You will bear in mind that there is great danger of death in the first or cold stage, in the malignant cases; re-action never taking place unless nature is assisted by art. So insidious are these attacks sometimes, that the patient is not aware of it himself for sometime after it commences. The legs and arms gradually become cold, the coldness commencing at the free extremity of the limb, and gradually extending up to the body. He is at last reminded of his condition by a sense of great weight or oppression about the epigastrium, which continues to deepen until he is utterly insensible to all surrounding objects. Sometimes I have seen patients with all the evidences of deep congestion, without the intellectual faculties being at all impaired—they complain of no particular pain, but of an indefinable sense of misery. I will not stop to theorize upon the probable cause of these malignant diseases, for of this you will find more than enough already written. It is doubtless the introduction of some subtle poison into the system, causing deep lesion of the nervous centers, affecting thereby calo-

rification, and preventing the heart from sending the blood to the extreme capillaries. Differences in age, sex, constitution, idiosyncrasy, &c., will cause differences in the phenomena presented in different cases, but the indications of treatment are nearly the same in all. They are to warm the extremities, equalize the circulation, relieve the congestions and inflammation, allay nervous irritability, and put a stop to the periodic tendency of the disease. To accomplish which, external heat, cupping over the epigastric and right and left hypochondriac regions and along the spine, warm fomentations, the application of sinapisms to the extremities, spine, chest and abdomen, promoting the secretions, and to fill the two last indications, to introduce a sufficient quantity of the antiperiodic agent and morphine: all these may be brought into requisition, and to the *extent justified by the urgency of the symptoms.* When called to treat one of these cases, I direct eight to ten gallons of water to be heated, ears of boiled corn, bricks heated; and a pint of spirits of turpentine, with an equal quantity of vinegar, to be put into a vessel and made boiling hot, into which put half pound of mustard and the same quantity of cayenne pepper. With this strips of flannel are to be saturated, and the extremities enveloped from the fingers and toes to the trunk, and then the heated mixture to be poured on them. A small blanket torn into strips of the proper width answer the best purpose for encircling the limbs. The hot bricks should then be put about the feet and legs, and the hot corn about the body. Previously, however, to doing this, the patient should be cupped over the liver and stomach, and the warm fomentations used; also, cupped along the spine, and the sinapisms applied along the spine from the occiput to the sacrum, and over the lower part of the chest and abdomen.

The most important inquiry now is, at what time, and in what quantity, shall quinine be given? This will depend upon circumstances. If we have reason to believe that it is a congestive ague of the quotidian type, we need be in no great hurry about administering quinine; but as we cannot always arrive at a correct conclusion upon this point, it will be safest to commence giving it as soon as there is a perfect intermission. But if it be congestive remittent fever, I hold that a perfect re-action

should *first* be established, and then at the first appearance of a decline of the pulse, the quinine should be commenced. About five grains every hour for five or six times is the quantity that I usually give; and eight grains, I think, is the largest amount that I have ever given at a dose in these cases.

In conclusion, I will say that it would be extremely difficult to enumerate all the cases of disease, and conditions of body that may be benefitted by the use of quinine. But, regarding it as a pure tonic in small doses, and as *the* great anti-periodic agent, I should say that its use was indicated in nearly all cases requiring a tonic treatment, alternating or combining it with other tonics; and in all cases of disease that commence with, or assume during their course, the periodic character. Of these latter, you will find a vast many in the South; for, in the language of some of the ancient writers, intermittent fever, at times, seems to have the power of forcing all other diseases to put on its livery.—*Med. Examiner.*

Ship Fever. An Inaugural Thesis, submitted for the degree of M.D., at Geneva Medical College, Jan. 1849. By Elizabeth Blackwell, M. D.—The summer of 1847 was distinguished by the epidemic brought to our seaport towns by means of the crowded emigrant ships, which arrived in great numbers from Europe. Our hospitals were filled to overflowing with patients in every stage of the disease,—many died in the receiving wards, many more only entered the hospital wards to prove the inefficiency of the resources of medical art. An examination of the nature of this disease, showed it to be a species of Typhus.

Much discussion has arisen in the profession, in relation to the distinction between typhus and typhoid fever. The majority of French writers, and high authorities in our own country, recognizing a distinct disease, under the latter title, or enteric fever, possessing most of the symptoms which mark typhus, but distinguished chiefly by a violent affection of the intestinal canal, producing diarrhea during life, and revealing to anatomical investigation, a remarkable lesion of the mesenteric glands, and

the glands of Peyer—while the English writers generally consider enteric fever as only a form of typhus, and not possessing those peculiar characteristics, that would entitle it to rank as a distinct disease. This latter opinion has been well stated by Cruveilhier, who in this respect differs from the majority of French physicians,—he says:

"The miasma (from which he supposes the disease to originate) is carried by the air into the lungs, whose mucous membranes, so eminently absorbent, serves the purpose much oftener of absorbing, than of eliminating miasma, and other morbid causes, being, in this respect, in opposition to the skin and the intestinal mucous membrane. When the miasma is absorbed, it is carried into the current of the circulation, and infects the blood.—Sometimes it acts immediately, at other times it needs, like a germ, a certain period of incubation. At the moment of explosion, a chill, more or less violent, takes place—a sort of centripetal movement, which announces that the economy is under the dominion of a cause which oppresses it, and that the digestive system is violently affected. Individuals have been known to die during the chill. The centrifugal movement, the reaction, heat, the development of the pulse, follow. It is then that the miasmatic cause is carried to this or that organ—sometimes to the isolated or aggregated mucous follicles, when follicular enteritis follows; sometimes to the mucous membrane of the large intestine, when diarrhea or dysentery supervenes. In other instances the miasmatic cause is directed to the lungs, or the brain—sometimes it is exhausted on a single organ, and again it is carried simultaneously, or successively, to several organs—in other words, in certain constitutions, the miasmatic cause reaches the large intestines; in others, the aggregated or isolated glands of the small intestine, in others the lungs, in others again the brain, etc., and these individual peculiarities, the various influences of all sorts, in the midst of which typhus is developed, explain the innumerable differences, which successive epidemics present." This description, as will be presently seen, applies accurately to the epidemic of 1847, where the same morbific causes produced, in different individuals, the diverse phenomena described. It may also be stated,

n general terms, before proceeding to a more detailed description, that this disease was subject to the general laws of fever, viz: muscular debility, action and reaction, and the daily exacerbation impressed on all febrile action by the rhythmical movements of life; and exhibited the characteristic marks of typhus-stupor, dark color of the face, the eruption, peculiar odor, dark sordes, etc.

In seeking the causes of this epidemic, we are unable to find any which would indicate an essential difference between it and many preceding ones. Ireland, from which the immigrants chiefly came, has often suffered from sickness produced by general destitution. In 1847 an epidemic prevailed, caused by the wet changeable weather, which ruined the harvests, and reduced the people to a scanty supply of unwholesome food. Many a "Famine Fever," has stamped its dismal image on the minds of the older inhabitants. But so fearful a state of universal destitution and sickness, as prevailed in 1847, has not been recorded in the annals of that unhappy country. It seemed to be a summing up of the horrors of all former suffering.

To escape the terrible evils of famine and pestilence, which threatened them at home, the lower classes of the inhabitants hastened in crowds to take refuge in America. The ill ventilated steerages of the emigrant ships were filled to overflowing, the air becoming constantly more impure from the bad habits of the passengers; their stores of poor provisions were frequently insufficient to sustain them, the water was often bad, and limited in quantity—here, deprived of all excitement, without employment or exercise, their minds had time to brood over the fearful scenes they had left—fear, sorrow, anxiety, joined with the physical evils of their condition, tended to depress the vital energy, and the seeds of disease sown in their constitutions were thus nourished into life; the disease broke out with great violence, and many died before reaching land.

The following account of the phenomena of the fever, is derived from personal observations, made during my residence in Blockley Hospital, Philadelphia, and the method of treatment discussed, is that pursued in that institution:

As the patients arrived in every stage of the disorder, and were not able to give an intelligent account of their previous sufferings, and as few of the inmates of the hospital contracted the disease, sufficient data was not collected to determine the period of incubation. The cases of acute disease, ordinarily, do not produce action immediately upon application, but so many circumstances may affect individual instances, that a wide experience, only, will determine the general law. In ordinary typhus, from one to two weeks are supposed to elapse, before the effects of exposure appear.

The method of attack varied greatly. In some it commenced suddenly with a violent chill and headache, prostrating the patient instantaneously; but more frequently there were premonitory symptoms for several days,—such as more or less headache, accompanied by pain in the back, and general uneasiness in the whole system, an indisposition to all mental and bodily effort, alternate chilliness and flushes of heat, a shrinking tenderness of the whole body, loss of appetite—these, and corresponding symptoms, after lasting for two or three days, entirely prostrated the energy of the patient. Nausea or vomiting commonly attended the commencement of the disease. A chill of varying intensity marked the first stage, accompanied by a feeble pulse, and other signs of depressed vital action; febrile reaction usually followed in a few hours, marked by a frequent pulse, often full and somewhat resisting in subjects who possessed much constitutional vigor; the skin was hot and dry, and the tongue furred; the symptoms of excitement continued to increase for several days, the pulse became more frequent and less forcible, mounting to 120, and sometimes 140 beats in a minute; the respiration was quick; the skin hot, dry, and harsh; the tongue covered with a thick brownish yellow fur; the eyes heavy and bloodshot, of a dusky red color; the head aching; the brain oppressed, with stupor or slight delirium; an eruption appeared all over the body, particularly on the chest and abdomen, which lasted four or five days; these spots were small and close, resembling somewhat the eruption of measles in size and color,—occasionally in cases which terminated fatally, they lasted throughout the dis-

ease, changing to a purple hue as the fever assumed a more malignant character.

The following sketch which I made by the bedside of the patient, will serve as an illustration of the general termination of the fever when it proved fatal. The symptoms of nervous derangement which had existed ever since her entrance, increased; the skin still continued hot, but flabby, and covered with sweat; the eyes were bloodshot and nearly closed; the mouth half open, drawn on one side, the saliva trickling down; the teeth and gums were covered with hard sordes; the tongue dry, with black crusts, and incapable of protrusion; the breath of a peculiar and offensive smell; respiration labored, the chest heaving violently; the movement of the heart extremely feeble, the pulse almost extinct; the patient lay in a comatose state, with entire loss of voluntary power; medicine could no longer be swallowed; the head slipped down on the chest; there were now involuntary passages of a dark green color; the neck and other parts of the body were swollen, and of a livid hue. Sometimes a furious delirium occurred in the last stage; and occasionally the vomiting of black sooty fluid, preceded death.

There were great differences in the state of the alimentary canal. It was always affected in the commencement of the disease; sometimes a diarrhea continued throughout, with nausea or vomiting; again costiveness would alternate with looseness of the bowels, or would resist the operation of purgatives, throughout the disease. The cases exhibited every variety of condition in this respect. After death, the body frequently swelled, and became of a dark purplish hue, which appearances subsided after the lapse of a few hours.

The facts in relation to the post-mortem appearances presented in ship fever, were kindly furnished me by Dr. Knight, one of the physicians of the institution.

Blood drawn during the different stages of the fever, rarely presented an inflammatory appearance; towards the fatal termination of the disease, it was dark, almost black, the coagulability of the fibrin being, in many cases, entirely lost.

Anatomical investigation proved the congestive nature of the disease. The brain and its membranes frequent-

ly showed marks of congestion, with occasional effusion of serum. Sometimes the signs of stagnation in the lungs explained the distressing dyspnea that had existed during life. The liver, and particularly the spleen, were found to be softened and enlarged; this latter organ was invariably affected, its enormous distension giving it many times its natural weight, amounting in one instance, to over seven pounds; the softening of its substance gave no indication of inflammatory action, no coagulated fibrin was found in its cells, and few traces of inflammation appeared in the other viscera. Occasionally extensive lesions of the alimentary canal were observed. Sometimes the glands of Brunner were affected, and the isolated and aggregated glands of the ileum were found in a state of enlargement and ulceration.

Various plans of treatment have been adopted in typhus, according to the different theories which have prevailed in relation to the nature of the disease; thus, the stimulant, the antiphlogistic, the emetic plans have been each exclusively and eagerly advocated.

It is important to remember that successive epidemics of the same disease differ so greatly in their essential types, that a method of treatment generally successful in one, may be as fatal in another; this modification of disease proceeds from causes of which we are ignorant, and exerts a wide-spread influence, affecting not only the prevailing epidemic, but all other diseases existing at the same time; thus, when an epidemic has been marked by high, inflammatory symptoms, it has been found that other diseases not usually inflammatory, have for a time, assumed that type, and required an entire change of the ordinary treatment. An old writer, expressing this fact, says quaintly, "there are various constitutions of years, that owe their origins neither to heat, cold, dryness, nor moisture, but rather depend upon a certain inexplicable alteration in the bowels of the earth, whence the air becomes impregnated with such kinds of effluvia, as subject the human body to particular distempers, so long as that kind of constitution prevails." As no two epidemics of the same disease, present exactly the same form, so no two individual cases of the same epidemic, are exactly alike. Variety in unity, is a universal law, and no more in diseased than in healthy action, does

Nature ever repeat herself. Each case, therefore, must be studied separately, and the medicines adapted to individual peculiarities. The general laws for treatment can be laid down, but the combinations required by the infinite variety of life, must be left to medical skill, exercised by the bedside of the patient.

It is evident, by the description already given, that the epidemic we are considering, did not present an inflammatory type—the symptoms presented during life—autopsical revelations—and a few experimental cases—all proved that venesection was not required, and could not be borne. The stage of high excitement which marked every case, contraindicated the exclusive employment of stimulants. The most successful treatment, was one that adapted itself to the different stages of the fever, being sometimes a modified antiphlogistic plan, sometimes stimulating, and frequently simply expectant. Dr. Rush remarks, that, "however excessive or deficient Nature may be in her attempts to throw off febrile disease, she rarely errs in pointing out the manner or emunctory, in, or through which, it ought to be discharged." The symptoms of a disease, therefore, furnish valuable indications of the method which Nature is taking to remedy the injury received, and her plan is frequently the best; but Nature is blind; her efforts must be watched, and sometimes guided; sometimes restrained; an effort salutary at the commencement, may be carried beyond the necessary point, by the habit or inertia of vital movement, which is as dangerous in disease, as it is essential to health; or a local disease, a symptom, which would constitute an important crisis of the general disease, if carried to the skin, becomes injurious, when directed to an organ essential to life; this not unfrequentiy happens. The skill of the physician is therefore indispensable to judge and direct the efforts of Nature; thus in the early stage of the fever, when nausea or vomiting, or a tendency to diarrhea existed, an emetic, followed by some mild purgatives, sulphate of magnesia or castor oil, produced the happiest effects, frequently cutting the disease short at its commencement.

The majority of patients, however, arrived after the febrile movement was fully established; if the pulse was

tolerably firm, and no signs of exhaustion present, the refrigerant diaphoretics answered the chief indications—the neutral mixture, combined with small doses of tartar emetic, the acetate of ammonia, or sweet spirits of nitre. To quiet nervous symptoms, and wakefulness at night, Hoffman's anodyne, and a Dover's powder in the evening, were useful; the heat and dryness of the skin were relieved by frequent sponging with cold water. If headache existed, cold water or ice was applied to the head. The state of the bowels was of great importance; when costiveness existed, frequent purgatives were necessary, adapted to the condition of the system—in the early stages, when the pulse had considerable strength, the saline purgatives were most suitable; at a later period, rhubarb, alone or combined with calomel, or enemata of castor oil, or oil of turpentine, were preferred. When, on the contrary, there were distressing nausea or vomiting, or exhausting diarrhea, other remedies were called for—an effervescing draught, a mustard plaster, or cups to the pit of the stomach, small pieces of ice continually swallowed, relieved the gastric symptoms; the chalk-mixture, with kino or catechu, small doses of opium and ipecacuanha, with the addition of acetate of lead, rhatany, or some other suitable astringent, checked the excessive action of the bowels. Ipecacuanha alone or in combination with opium, proved a valuable remedy in checked and vitiated secretion.

When the disease held its course unchecked by medicine, stimulants became essential to the successful treatment, and patients arriving at the hospital in the last stages of collapse, were restored to life by their energetic exhibition. The skill of the practitioner was nowhere more strikingly displayed, than in the anticipation of this period of collapse; by seizing the first moment when the vital energy began to abate, although, to the inexperienced observer, the symptoms of excitement still existed in full force. The carbonate of ammonia, wine whey, and brandy punch, were the stimulants most commonly used; the former was given in emulsion, to the amount frequently of ℥i a day. The latter, one part of wine or brandy to two of milk, were taken, a tablespoonful every hour or half hour.

Where the symptoms were in the least degree urgent, more powerful stimulation was necessary; pure brandy was frequently administered; mustard or cayenne pepper was applied to the extremities and the inside of the thighs; hot fomentations, blisters applied for their rubefacient effect only; the temperature of the skin being maintained by hot water, bricks, or sand. These powerful applications were of course only called for in cases of extreme danger. Very frequently a state of great debility existed, when the excitement of fever had in a great measure passed away, the pulse being extremely feeble, though sometimes frequent, and the skin partially hot, and it was then essential that tonics, nutritive, and even stimulating food should be employed; but their effects were carefully watched, and their use discontinued when they tended to reproduce the febrile symptoms. The preparations of bark were often highly useful; opium in small quantities, repeated so as to produce a steady excitement; porter also was serviceable; nutritive food was often required at this time, the essence of beef or mutton, a tablespoonful every hour, egg-nogg, and similar articles.

Great attention was paid to the thorough ventilation of the wards; perfect cleanliness enforced in the person and clothes of the patient, and the beds frequently changed.

Under this system of treatment, as pursued at Blockley Hospital, the mortality was about ten per cent., and during a part of the epidemic of 1847 it was as low as seven per cent.

In convalescence from typhus, the patient should be guarded with peculiar care. From the nature of the disease, an unusual relaxation of the whole system exists, and consequently a greater disposition to relapse from slight causes than in ordinary fevers. It is an important observation of modern pathologists, that when the general febrile symptoms have greatly diminished, the condition of the local malady by no means corresponds; that in the enteric form of typhus, the complete cessation of fever coincides with the time when the intestinal alteration becomes stationary. Experience has shown, that after six weeks, or even two months of apparent convalescence, a slight imprudence has renewed

the entire inflammation, and diarrhea, dysentery, or perforation and death have ensued. The appetite is generally keen at this time, but its demands must never be taken as a guide in the important matter of diet; the lightest aliments should be given during the first week of convalescence; gruel, chicken broth, well boiled potatos, and, as strength increases, beef tea, roasted apples, the pulp of some kinds of fresh fruit, and the most digestible animal food, form a suitable regimen for the convalescent state.

Cleanliness, ventilation, and judicious exercise, are of the utmost importance. Dr. Johnson makes the following striking remark:—"Sick men recover health sooner and better, in barns, huts, and sheds, exposed occasionally to wind, and sometimes to rain, than in the most superb hospitals of Europe; pure air is, in this respect, alone, superior to all forms of care, and all other remedies without such aid. When ground is gained by moderate diet, small in quantity, but stimulative of the powers of digestion, by exercises light but varied, and often repeated, it is effectually secured by washing the body in cold water, while the impressions of the active movements from the exercises and amusements, are yet in force. The application of cold water in such condition has a powerful effect. It produces a salutary action, and if followed by friction, and the refreshment arising from clean apparel, it gives and confirms a mode, which may be called the mode or tone of health."

The importance of the hygienic means here referred to, cannot be too strongly insisted upon. It is the duty of the physician to modify them in their application to individual cases, but the employment of similar means, both physical and mental, for the restoration of health, forms an important part of the treatment of disease.

The liability to relapse, is observed to vary in different epidemics of the same disease. Comparatively few cases occurred in the epidemic of '47. The secondary fever which accompanies the relapse, is sometimes complicated with erysipelas, diarrhea, or dysentery. The most frequent causes of relapse, are errors in diet, over exertion, or neglected bowels. In directing the treatment during relapse, the exhausted condition of the patient must always be borne in mind, and the activity of

ordinary treatment greatly modified. The nervous system is highly susceptible at this time, and it is found extremely advantageous to administer an anodyne, when purgative medicines are employed, particularly where signs of intestinal irritation exist.

We have thus seen that the Ship Fever epidemic presented nothing peculiar or mysterious in its history. As it sprang from the same causes, so it presented the same phenomena, as the ordinary typhus, which always exists, in a more or less degree, in the crowded alleys and dismal cellars of our large cities. When the laws of health are generally understood and practiced:—when a social providence is extended over all ranks of the community, and the different nations of the earth interlinked in true brotherhood—then we may hope to see these physical evils disappear, with all the moral evils which correspond to, and are constantly associated with them.—*Buffalo Med. Journal.*

Case of Traumatic Tetanus. March 16th, 1848—Albert Fisher, German, aged 20 years, quite robust, proprietor of a "coffee house" in the 3d Municipality, entered ward 11, Charity Hospital. Says he ran a nail into the external portion of his right foot, near the junction of the "metatarsal" and first phalangeal bones of the 'little toe,' about five weeks ago; that the wound caused him considerable pain at the time, but soon healed without any difficulty; that, at the expiration of three weeks from the time of the reception of the injury, he was seized with violent tetanic spasms, together with slight pain in the original seat of injury; that on the following day a physician laid open the old cicatrix, and extracted a portion of the nail which had been imbedded there during all this time, that the spasms were now somewhat mitigated, but he was confined to his bed with constant rigidity of the back, jaws and hip joints, together with frequent lancinating pains in the lumbar region.

In this condition I find him this morning. He complains bitterly of insomnia, begs to have something which will induce sleep; every three or four hours he has an ag-

gravation of the symptoms amounting to almost complete 'opisthotonos;' appetite good, bowels in good condition, perhaps a little torpid, skin perfectly natural, countenance wearing the distressed air so peculiar to these cases, complains much of the lancinating pain in his back, says they recur every three minutes.

Treat.—Ol. Ricin. f. ℥ i.—Tinct. Opii. gtt. xxx. every hour, after the free operation of the oil, until sleep is induced; low diet, Emplast. Vesicat to back.

17th. Says he feels better, but is drowsy and dull, oil operated freely, commenced taking laudanum at 12 M. yesterday, and repeated, as ordered, every hour until 12 at night, when he fell aleep and slept soundly until 6 this morning, pain in back not so intense, rigidity the same.

Treat. Moderate dose of magnesia and rhubarb, tinct. opii. gtts. lx., to be takent at 8 P. M., half diet.

18th. Not so well, slept very little last night, complains of the stupefying effects of the laudanum, pain in the back returned.

Treat. I now resolved to try the *internal* administration of chloroform, and ordered, accordingly, gtts. xxx to be given at once in one ounce of mucilage, and to be repeated every two hours, with gtts. x additional at each dose, until sleep is induced; blister, also, to be reapplied, it having taken but slight effect before.

19th. Took four doses of chloroform as ordered, and fell asleep about an hour after the first dose, slept soundly until 1 o'clock this morning, says he thinks he would have slept before, but for the irritation kept up by the blister; looks bright, feels much refreshed, back much relaxed, hip joints nearly entirely so, no unpleasant result from taking the chloroform.

Treat. Chloroform repeated as before, beginning with gtts. lx., half diet.

20th. Slept several hours yesterday, and soundly all night, feels much better, rigidity almost the same.

Treat. Chloroform gtts. c. at night, rhubarb and magnesia.

21st. Had several spasms yesterday before taking the chloroform, complains much of the pain consequent, countenance more distressed, had several spasms this morning, rigidity the same.

Treat. Chloroform gtts. c. to be taken at 12 M., and repeated at 4 and 8 P. M., if sleep is not induced.

22d. Took two doses of chloroform as directed, and slept from 4½ P. M., to 12 or 1 this morning; spasms quite frequent this morning, amounting to almost decided 'opisthotonos;' was aroused from his sleep by these spasms several times last night, much pain, is evidently growing worse.

Treat. Quin. sulph. grs. xxx.
Tinct. opii. gtts. lx.
Mucil. acac. f. ℥ i., M.
S. Take at 10 A. M.

5 P. M. Much better, but four or five spasms during the day, and these much mitigated, pain much relieved, countenance more cheerful, no 'tinnitus aurium,' or other disagreeable effect from the use of quinine.

Treat. Repeated the quinine, &c.

23d Very much improved, had but one or two slight spasms since I last saw him, scarcely any pain, slept well last night, is delighted with the remedy.

Treat. Same dose as before, to be taken at 10 A. M., and 3 and 9 P. M.

5 P. M. Has taken two doses as ordered, feels better every hour, spasms scarcely perceptible, no pain, has slept well during the day, no unpleasant symptom from quinine, feels 'a little drunk.'

24th. Still improving, rigidity of back very slight, no pain, slept well all night, looks cheerful. *Treat.*—Same dose quinine at 12 M. and 8 P. M.

25th. Marked improvement, no more spasms, no pain, rigidity very slight, slept well, looks bright, says he is nearly well.

Treatment same as before.

26th. Patient is walking about the ward, improving rapidly. Same treatment continued.

27th. Suspended the quinine, and ordered good diet, small dose of oil.

30th. Discharged him, *well*

Observations.—This is the first instance, I believe, wherein chloroform has been *internally* administered in the City of New Orleans, and notwithstanding its failure to effect the desired end, it may not be uninteresting to

the profession to know the results of its exhibition. It evidently possesses the power of producing anesthesia when thus administered, and my limited observation leads me to believe that the process of inhalation may ere long be superceded by the method under consideration. The patient experienced no disagreeable effect whatever from its use; there were none of the distressing symptoms which I have so often seen consequent on the inhalation of the agent, viz., wild delirium, convulsive action of the muscles of the extremities, and astonishingly increased activity of the circulation. The effect appeared to be more gradual, the patient passing off into a sweet and refreshing sleep without being subjected to previous excitement.

The dose administered was much larger than in any previous instance that I know of, and, I think, may have been considerably increased without incurring any risk of unpleasant consequence.

In relation to the administration of quinine in this case, I cannot refrain from calling the particular attention of the skeptical reader to a few facts extracted from the above 'Notes.'

1st. The patient, at the time of the adoption of the quinine treatment, was evidently growing worse. 2d. That marked improvement followed the first dose. 3d. That, so far from any disagreeable symptoms having followed said dose, the patient actually expressed himself as 'happy' whilst under its influence, and begged to be kept constantly in this condition. 4th. That an hour and a half after having taken two thirty grain doses, at an interval of five hours, he said he felt even better than before, no other disagreeable sensation than that of being 'a little drunk.' 5th. That on the morning after having taken ninety grains within ten hours he expressed himself as much improved in every way, and *was* so. 6th. That after this he took sixty grains daily, in two doses, for three days, without experiencing a single one of the much dreaded effects of the medicine, and was not only relieved of the tetanic symptoms, but improved most wonderfully in appearance, slept well, had a fine appetite, and digested the strongest food with ease.—*New Orleans Med. and Surg. Jour.*

THE WESTERN JOURNAL.

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LOUISVILLE, APRIL 1, 1849.

EDITORIAL CHANGES.

Our readers cannot have failed to remark that the names of our associates, Dr. Drake and Dr. Colescott, have not for several months past appeared on the cover of the Journal. Weary of the task, and having the prospect of more profitable employment for their leisure hours, these gentlemen determined to abandon it at the beginning of the present year. We parted with them reluctantly, but have no right to complain that they were not disposed to continue any longer their connection with a work where the labor is great and the rewards small. Dr. Theodore S. Bell, who was associated with the enterprise in its incipiency, returns to it in their room. As a spirited, vigorous writer, Dr. Bell is well known to the profession. His industry is untiring, and he returns to the editorial tripod again with the experience of more than eleven years.

COMMENCEMENT IN THE UNIVERSITY OF LOUISVILLE.

The degree of M.D. was conferred on eighty-one of the alumni of the University of Louisville on the evening of the 5th of March. The Hon. James Guthrie, President of the Board of Trustees, tendered to the graduates the congratulations of the Board, and urged upon them, in impressive terms, the duty of diligence in professional study as the

only course by which they could hope to reflect credit upon the institution, the highest honors of which they were now about bearing to their distant homes. The valedictory address on the part of the Faculty was delivered by Professor Caldwell, and occupied in its delivery about two hours. It took a wide range. The present state of the medical profession as compared with its condition in former years, in the United States and in Europe; the physical grandeur of the American continent, our mountain ranges, rivers, lakes, and prairies; the superiority of the Anglo-Saxon race, and its destiny; our political institutions; physical education, and sectional medicine, all were discussed in the characteristic style of the venerable professor.

The number of students in the medical department of the University of Louisville during the last session was 331. The Annual Catalogue and Circular will soon be issued.

CHOLERA.

The steamboats ascending the Mississippi and its tributaries are infested with cholera. Upon nearly all that have arrived at Louisville from New Orleans during the last fortnight, cases, some of them fatal, are reported to have occurred. The disease is prevalent at New Orleans, but not to an extent to excite any alarm. The Nashville papers of the 24th March mention several cases of the epidemic as having appeared in that city, but only one death is reported. During the week ending the 19th of March, twenty-six deaths from cholera took place in St. Louis. The epidemic has made its appearance at the Jefferson Barracks, and from the 13th to the 19th of March, twenty-seven deaths from the disease occurred among the troops stationed there. A few cases have originated in Louisville, and some deaths have been attributed to the disease within a few days; but thus far it has not manifested an epidemic tendency unless the frequent occurrence of bowel complaints may be regarded as such. These affections, in some instances, have been severe, but a prompt resort to remedies has quickly subdued them.

The March number of the New Orleans Medical and Surgical Journal states, in reference to the decline of cholera, that the deaths for the week ending the 17th of February were 64, while for the previous week they were 80, showing a diminution of 16 deaths weekly. The pestilence was not subsiding so rapidly as it did in 1832.

The editor mentions a disease which has appeared in some parts of Louisiana, near sluggish streams and bayous, wearing the type of pneumonia, and which is reported to kill in a few hours, the patient becoming prostrate, powerless, and cold, from the first hour of the attack. He suggests that this may be cholera in a masked form. No vomiting or purging attends it.

Cholera as it recedes from the river is found to assume a less virulent character.

CHOLERA IN NEW ORLEANS.

Dr. Hester, editor of the New Orleans Medical and Surgical Journal, states the following facts in regard to cholera as it existed in that city.

The disease, as is well understood, broke out about the time that the ship Swanton arrived at New Orleans from Havre, but the cases occurred in different parts of the city, and remote from this vessel.

The disease was chiefly confined to the intemperate, the reckless, and such as were exposed, badly fed, lodged, and clothed; the blacks, as falling under this class, were great sufferers.

Old residents were not so subject to attacks as strangers newly arrived in the city.

Dr. H. has not heard of a single case of cholera among the citizens who passed through the epidemic in 1832. The disease was particularly fatal to persons affected with chronic diarrhea.

Influenza prevailed to some extent with cholera, and Dr. H. remarked that individuals who were affected with the former escaped the latter complaint.

Dr. H. says, in conclusion, "congestion kills the patient, therefore let us regard it as an acute form of *algide*—of *congestive* fever, and nothing more."

THE CHOLERA.

The epidemic has continued to prevail in Great Britain throughout the winter. In New Orleans it appears at last to be vanishing. The *Delta* of the 1st of March says—

"According to the reports of the sextons to the board of health, the number of interments at the several city cemeteries, during the week

ending on Saturday last, was seventy-four. Of this number there were but four of cholera. The number of deaths of that disease for the preceding week was over sixty. It is gratifying at last, to report, as we may now with confidence, the entire disappearance of this dreadful malady. For several weeks, since it ceased to be epidemic, the sporadic cases have furnished food for the worms, at the rate of from sixty to seventy deaths a week."

The pestilence has lingered long about Nashville without becoming epidemic, or spreading to the towns or country around. Dr. Buchanan, in a letter to us, dated 25th February, makes the following interesting statements respecting the disease.

"Up to the present time we have had about fifty deaths here from the cholera, and a much greater number of cases, the large proportion of which were mild at the commencement. Indeed, almost every case gave timely warning by some premonitory symptom, which, among the intelligent, was properly regarded and easily removed; but among the indigent and ignorant, often ran on to fatal collapse before assistance was sought. In our practice here we have found that opium and diffusible stimuli are *the* remedies to be relied on to avert the disease. Given in time, they are almost infallible; at least they have proved so under my own observation; and the success attending the bold administration of opium, even in almost hopeless cases, has been far beyond my expectation. But as I am now writing in too great haste to give satisfaction, I will conclude by saying that I will, if time will possibly permit, furnish you with a statement of the weather, the disease, and its treatment for your April number."

LOUISVILLE MARINE HOSPITAL.

Courses of clinical instruction have been commenced at this institution, and will be continued through the vacation of the medical school. They will afford fine opportunities to students for acquiring a practical knowledge of medicine. Daily visits are made to the hospital, and students are present at the examination of patients by the physician and surgeon, hear the clinical remarks, and witness the post-mortem dissections.

Hitherto this excellent school for the study of practical medicine has been very much neglected by medical students during the summer recess,

when, in fact, it is most valuable. It is in the vacation, when there is no crowd of students, that clinical medicine can be studied to most advantage. The courses now in progress at the hospital will commend themselves to all students of medicine who have it in their power to spend the spring and summer in the city. It is admitted by all, that the bedside is the place for attaining such knowledge of disease as fits the young physician for practice. Medicine, in all its departments, is demonstrative. The pupil, in order to understand, must see. Books will give him the elements; but he must make dissections, see cases, perform operations, institute diagnoses upon the sick, and acquire readiness in prescribing, before he is prepared to go forth as a practitioner. For these ends, hospitals are invaluable.

TRANSACTIONS OF COLLEGE OF PHYSICIANS.

The Summary of the Transactions of the College of Physicians of Philadelphia, from September 6th, 1848, to January 2d, 1849, has been received, and we have looked through its pages with great satisfaction. Besides what we have transferred to our own pages, it embraces a report on Practical Medicine, a memoir of the late Dr. Henry Neill, a report on Midwifery, and a variety of miscellaneous matter, of decided interest. We always expect the appearance of this Summary with pleasure, and never fail to derive instruction from its discussions and reports. It is a summary of facts especially interesting to the physician in practice, the members of the College themselves belonging to that class.

MEDICAL SCHOOL CHANGES.

The present season is likely to be a memorable one for the changes in the organization of western medical schools. At Lexington, Memphis, and Louisville there have been resignations and new appointments. Dr. Drake, who has been so long identified with medical teaching in the Valley of the Mississippi, has severed his connection with the University of Louisville, and offers his services to the public, at Cincinnati, in the practice of medicine. Dr. Bartlett and Dr. Thomas D. Mitchell have resigned their professorships in Transylvania University,

and Dr. Henry M. Bullitt, of this city, has accepted the chair of Materia Medica vacated by the latter. Dr. Donne has retired from the chair of Anatomy which he accepted two years since in the Memphis Medical College.

While speaking of medical schools we ought not to fail to announce, what we are sure it will rejoice our readers to learn, that the charter for a second school in Louisville was rejected in the Senate by a decisive majority. The citizens of Louisville have cause to be gratified at the success of their present school, and are too wise, we believe, to jeopard its prosperity by attempting a second. We trust the hopeless project is now finally abandoned.

BOSTON MEDICAL AND SURGICAL JOURNAL.

The first number of the fortieth volume of this spirited journal lies before us on our table. There is something encourging in the fact, that during these twenty years it has never changed editors, and never appeared to languish; a fact which speaks loudly in favor of the industry and tact of the editor, and of the punctuality of its subscribers. We trust that many years of cloudless prosperity are yet in reserve for our valued, and shall we not say, venerable, contemporary?

ANECDOTE OF M. ORFILA.

Orfila, the eminent chemist, had long been Dean of the Faculty of the School of Medicine, in Paris, when the revolution of February broke out. A royalist in principle, a decided partisan, ardently attached to the person and the cause of Louis Phillipe, the favorite of Guizot, it was natural when the reins of government passed into other hands that he should be looked upon with an evil eye. The enthusiastic young republicans in the medical school were inflamed against him; he was disliked by most of the members of the Provisional Government. In his office of Dean he had handled much of the public money, and was charged with having applied large sums to his own private use. He was removed, and M. Bouillaud placed at the head of the Faculty. Orfila asked that an inquiry should be made into his administration, and the result of a patient and thorough investigation was his triumphant acquittal,

Bouillaud, his bitterest enemy, concurring in the justice of the decision. The following anecdote was related to us while in Paris, and as it is characteristic of this remarkable man, whose history has acquired new interest from these events, we have concluded to repeat it here.

We were seated with a classmate one morning in the cafe, which immediately fronts the *Ecole Pratique*, drinking chocolate and reading the morning journals, when Orfila passed hurriedly by the window, and entering the tall, arched gateway, was soon lost to our view. There, said my friend, a young Frenchman, is one of the most remarkable men in Paris, the firmest, the sternest, the most inflexible Spaniard I ever saw. Some yea s ago, he continued, through his influence, aided by that of a few others, M. Royer Collard was introduced into the School of Medicine, in opposition to the sense of the profession, and to the feelings of the class. Indeed, so unpopular with the latter was the appointment that they resolved to hiss Royer Collard down whenever he should attempt to lecture before them. Not long after he had been vested with the professorial gown, Royer Collard arose in the Amphitheatre of the School of Medicine to deliver his introductory lecture. The room was crowded to overflowing; the door ways were blocked up; even the passages were filled, so great was the curiosity and exasperation of the students. The newly created professor had scarcely uttered the word *Messieurs*, when the hisses began and soon became so loud and universal that he was obliged to desist. He sat down, and the hissing and tumult gradually subsided. He rose the second time; but again the deafening noise obliged him to refrain. He sent for Orfila, Dean of the Faculty. Orfila entered stealthily at a side door, and, shielded from the view of the class by a black-board, but visible to Royer Collard, beckoned him to resume his discourse. "*Messieurs*" was again uttered, but had hardly passed his lips when the students, furious at his obstinacy, fairly yelled out; the tumult was greater than ever. The lecturer, his face blanched with rage, again sat down, and the uproar soon subsided. Orfila stepped from behind his cover, walked forward in front of the class, folded his arms across his breast, and, turning to the insulted professor, said in a clear, distinct, firm voice, "*Monsieur Royer Collard, continuez.*" Royer Collard, obedient to the command, stood up, evidently very much inspirited by the presence of the Dean, and, throwing as much confidence as he was master of into his tones, attempted to proceed with his lecture. The house rang with hisses, yells, and groans. Orfila turned slowly round

and cast his eyes over the multitude. The noise at once ceased. Then raising his voice, he again repeated, "*Monsieur Royer Collard, continuez.*" And the persevering professor once more resumed his lecture. '*Messieurs,*' he began; but a tempest of hisses, mingled with groans, again obliged him to sit down. Orfila singled out a student who had been prominent in the disturbances, cleared the railing which separated them at a single bound, seized him by the nape of the neck, pushed him to the door, reached the stairway, and kicked him to the bottom of the stairs. Returning, he resumed his former position, and in the same firm, clear tone said, "*Monsieur Royer Collard, continuez.*" Royer Collard rose once more to his feet, commenced his discourse, and such was the effect of the Dean's movement, that to the close of his long lecture a pin might have been heard to fall in any part of that vast assemblage. We rejoice that this stern old philosopher has passed unharmed through the fiery ordeal to which he has been subjected. His fame belongs to the world, and we should grieve at any occurrence that would abate its luster. D. W. Y.

MEDICAL ASSOCIATION.

The profession will bear in mind that the American Medical Association meets in Boston on the first Thursday in May. Medical Societies, Colleges, etc., it is to be hoped, will appoint delegates, and in selecting them will fix upon such as will attend the meeting. The Association will lose the character of national which it is so desirable to have maintained if members are not present at its meetings from all quarters of the union. We trust that the approaching assemblage will be the largest yet seen, and can venture to promise those who attend that they will be hospitably received by their brethren in Boston, and will find the meeting full of intellectual and social interest.

TO CORRESPONDENTS AND PUBLISHERS.

The communications of Drs. Buchanan, Dawson, Barnett, and Haskins have been received, for which the authors will please accept our acknowledgments. They will appear as early as room can be found for them. We are indebted to publishers for a number of new works which will be noticed at the earliest practicable day.